

# STS CONSULTANTS, LTD.

City of Edina Well No. 7 Study – Phase II Report,
March 2005 to June 2005

Minnesota Pollution Control Agency St. Paul, Minnesota

STS Project 99613-XB

EPA Region 5 Records Ctr. 300542

 $^{lack}$ 



STS Consultants, Ltd. 10900 - 73rd Ave. N.. Suite 150 Maple Grove, MN 55369-5547 763-315-6300 Phone 763-315-1836 Fax

June 30, 2005

Mr. Nile Fellows Minnesota Pollution Control Agency 520 Lafayette Road St. Paul, MN 55155

Re: City of Edina Well No. 7 Study – Phase II Report, March 2005 – June 2005;

STS Project 99613-XB

Dear Mr. Fellows:

We are pleased to present you with our report "City of Edina Well No. 7 Study – Phase II Report, March 2005 to June 2005". The work was conducted following the scope of work outlined in STS Proposal 12764PP (March 16, 2005) as described in the introduction of this report. The proposal was approved as stated in the Contract Work Order SFST0504 issued by MPCA on March 17, 2005. That Work Order expires on June 30, 2005.

This report discusses the land use and source characterization survey, review of the historical VOCs data, well sampling activities, water level monitoring, and surveying work. The report also presents and discusses the laboratory analytical results. Finally, the report includes a discussion of the investigation results and recommendations for further work.

This report is a continuation of the City of Edina Well No. 7 Study, July 2004 to March 2005 Preliminary Data Report submitted by STS Consultants to the Minnesota Pollution Control Agency on March 3, 2005.

If you have any questions, please contact Peter Rzepecki at 763-315-6345 or Paul Putzier at 763-315-6304.

Senior Hydrogeologist

Sincerely,

STS CONSULTANTS, LTD.

Sich Zurch Peter Rzepecki, PhD PHg PG

Senior Hydrogeologist, Risk Assessor

PR/dn Encs.



# **Table of Contents**

1.0	INTRODUCTION	1
2.0	LAND USE AND SOURCE CHARACTERIZATION	
	SURVEY	3
3.0	REVIEW OF THE HISTORICAL VOCs DATA	
4.0	GROUNDWATER SAMPLING	7
5.0	WATER LEVEL MEASUREMENTS	8
6.0	ANALYTICAL RESULTS	10
	6.1 VOC Data	10
	6.2 Tritium Results	11
7.0	DISCUSSION	12
8.0	RECOMMENDATIONS	14
9.0	REFERENCES	16



#### 1.0 INTRODUCTION

Vinyl chloride contamination detected in the City of Edina Municipal Well Number 7 (ED-7) triggered an investigation that is described in the Preliminary Data Report (STS, March 2005) and in this new Technical Report. Initially, the purpose of the investigation was to collect a set of discrete samples from different depths within well ED-7 using packers and to identify and sample other up-gradient wells. The collected data would help trace sources and pathways of groundwater contamination that is reaching ED-7.

Since then, several tasks were added to the original scope of work that included development of the Sampling and Analysis Plan and appendix to this Plan, geophysical tests of the ED-7 and the Meadowbrook Golf Course Well, collection of tritium and natural attenuation samples, water level monitoring and well surveying.

Following is the list of conducted project tasks, activities and data collected and analyzed as part of this Phase II Investigation conducted during March – June 2005:

- Land Use and Source Characterization Survey;
- Review of the historical VOCs data;
- Development of the Appendix to the Sampling and Analysis Plan (SAP) to guide sampling of the wells (see Appendix A);
- Sampling of 20 wells (all public monitoring wells) for VOCs analysis. Fifteen wells
  were sampled using Century Discrete Sampler and five wells were sampled using
  Low-Flow Methodology. Twelve wells were Drift wells, six were Platteville wells and
  two were St. Peter wells;
- Installation of data-logger/transducer, Professional MiniTroll, in the Meadowbrook Golf Course Well to monitor water level every 15 minutes;
- Surveying the elevation of the top-of-casing of the Meadowbrook Golf Course Well;
- Review and analysis of the VOCs analytical results this review included the data collected by STS Consultants and the data collected by ENSR. MPCA personnel were present during that sampling to split samples for VOCs analysis and the analytical results were made available to STS for review and summary.



Following is a description of the work performed, presentation of the results, discussion and recommendations.



#### 2.0 LAND USE AND SOURCE CHARACTERIZATION SURVEY

STS conducted a land use and source characterization survey that included the area within a one mile radius of the two highly contaminated wells, W421 and W434. The area of that survey was selected based on a conceptual model presented in the STS Preliminary Data Report (STS, March 3, 2005). According to that model, the source area of contaminants detected in ED-7 was likely to be around these two wells, W421 and W434. The survey identified several potential sources of volatile organic compound contamination to groundwater. These potential sources were identified through review of readily available public information, interpretation of historical property uses and interviews with persons familiar with the area. The results of that survey are presented in a separate STS report (STS, May 27, 2005).



## 3.0 REVIEW OF THE HISTORICAL VOCs DATA

STS conducted a survey of various information sources in an effort to locate historical data on VOC contamination detected in groundwater in the area within the boundaries of the cities of Edina, St. Louis Park and Hopkins. Two general sources of information were found to contain such data: the Minnesota Pollution Control Agency (MPCA) files and the Minnesota Department of Health (MDH) groundwater database.

The MPCA file search was focused on the areas that are up-gradient or potentially up-gradient of ED-7 - the City of St. Louis Park and, in particular, the City of Hopkins area that was not covered by the Land Use and Source Characterization Survey discussed in the previous section of this report. The contaminated properties were identified using the GIS based search provided on the MPCA website:

## http://www.pca.state.mn.us/backyard/neighborhood.html

The results of that search are presented on Figure 1 and in Table 1. Following is a brief discussion of the VOCs data search findings. The emphasis is on the documented presence of chlorinated solvents dissolved in groundwater.

- FINA, unpermitted dump. Some chlorinated solvents were found at low concentrations in shallow groundwater in 1994. In one well, MW-2, trichloroethene was detected in 2000.
- Hopkins Sanitary Landfill, State closed landfill. Vinyl chloride, dichloroethene and trichloroethene were detected at high concentrations (hundreds of μg/L) in 1991 in two drift wells, MW #104 and MW #107. Lower concentrations were also detected in several other wells.
- Sather's, Voluntary Investigation & Cleanup Site. Trichloroethene was detected at low concentration in MW-2 in 1998.



- Honeywell Data Serv., Voluntary Investigation & Cleanup Site. High concentrations
  of tetrachloroethene were detected in the drift monitoring well MW-22 in years 1991
  and 1992. In the following years, these concentrations systematically decreased.
- Honeywell Minnetonka, Voluntary Investigation & Cleanup Site. Low levels of tetrachloroethene were detected in a drift well, MW-1 in 1991.
- Hopkins Technical Center, Voluntary Investigation & Cleanup Site. Significant levels
  of chlorinated solvents were detected in the site monitoring wells. The highest
  concentrations were observed in the deep drift well, W6. The chlorinated
  compounds' concentrations were increasing in that well throughout the years 1993
  and 1994, reaching 880 μg/L for tetrachloroethene, 60 μg/L for trichloroethene and
  360 μg/L for 1,2-dichloroethene.
- Lindbergh Heat Treating, Voluntary Investigation & Cleanup Site. Trichloroethene
  was detected at very high concentrations in the site's test wells. The highest
  concentration was detected in TW3 51,000 μg/L.
- Schloff Chemical, Voluntary Investigation & Cleanup Site. Tetrachloroethene was detected at very high concentrations forming a plume that was "deeping" toward the bedrock while migrating away from the on-site source. The highest groundwater concentration was detected in the site monitoring well MW-3S – 12,000 μg/L.

The Minnesota Department of Health (MDH) groundwater database includes the results of analysis of the samples collected from the municipal wells, water treatment plants and distribution centers. Only data obtained from individual municipal wells were included in this review. Table 2 presents the list of all the VOCs detects for the City of Edina and City of St. Louis Park municipal wells. No detects exist in that database for the City of Hopkins wells. The only trace level detects in the Hopkins wells are benzene, toluene and 1,1,1-trichloroethane, noted in samples collected at the treatment plant and distribution center.



Table 2 reveals the presence of VOCs, chlorinated solvent VOCs in particular, detected in the Edina wells No. 2, 7, 8 and 15, and in the St. Louis Park wells No. 4 and 14.



#### 4.0 GROUNDWATER SAMPLING

On June 2 and 3, 2005, STS collected groundwater samples from 15 wells using the Century Discrete Sampler. This sampling was conducted following general sampling procedures described in the Sampling and Analysis Plan (SAP) included as Appendix A in the STS Preliminary Data Report (STS, March 3, 2005). On June 7 and 8, 2005, STS collected samples from an additional five wells constructed using a 1.2 inch diameter – a diameter not large enough to accommodate the Century Discrete Sampler. These wells were sampled using a Low-Flow Sampling Methodology described in the Appendix to the Sampling and Analysis Plan for the City of Edina Well Evaluation presented in Appendix A to this Report.

A total of 20 wells were sampled by STS, 12 wells completed in Drift formation, six wells completed in Platteville Limestone formation and two wells completed in St. Peter Sandstone formation (see Table 3).

The Minnesota Pollution Control Agency provided STS Consultants with the VOC analytical results for the split samples collected during late April and early May by ENSR. ENSR conducts this sampling periodically to monitor the Reilly Tar and Chemical Corporation related PAH plumes. Thirty-six wells were sampled - 13 of them completed in the Drift formation, 13 completed in the Platteville Limestone formation, five completed in the St. Peter Sandstone formation and five competed in the PDCJ formations.

The location of all wells sampled by STS and ENSR in April, May and June 2005 and the wells sampled by STS in a period from October 2004 through January 2005 (as reported in the Preliminary Data Report, STS, March 3, 2005) are presented on Figures 2, 3, 4 and 5.



## **5.0 WATER LEVEL MEASUREMENTS**

On June 15-17, 2005, STS measured water levels in 40 wells located within the boundaries of the City of St. Louis Park. The 2005 water level data are presented in Table 4, along with data collected by the City in the years 2001-2003. The City collects such data twice a year – in the Spring and in the Fall. The last column of Table 4 presents the comparison between the water levels measured by STS in the late Spring and the average water levels measured by the City of St. Louis Park. As can be seen, the STS measured water levels are systematically lower compared to the Spring-Fall levels measured by the City. The difference would likely be larger, if the STS measurements were taken in the middle of the Summer, when water demand is the highest.

STS Consultants surveyed the top-of-casing of the Meadowbrook Golf Course Well (MGC Well) to assure that the correct water elevations can be calculated. In a similar fashion, the City of Edina surveyed the top-of-casing of ED-7. The measured elevations of the top-of-casing are as follows: ED-7 – 954.10 feet NGVD, MGC Well – 895.85 feet NGVD.

On May 19, 2005, STS installed a datalogger/transducer, MiniTroll Professional, in the Meadowbrook Golf Course Well and initiated collection of water levels every 15 minutes. From March 9 through June 7, 2005, Minnesota Department of Health operated similar equipment installed in ED-7. The collected data are presented on Figures 6 and 7. As Figure 6 demonstrates, water level in the PDCJ aquifer system changed over 20 feet between March and June. It is anticipated that summer water level is more than 30 feet lower compared to winter water level.

From May 19 through June 7, 2005, water level was monitored in both wells - ED-7 and Meadowbrook Golf Course Well. This combined hydrograph data are presented on Figure 7. As can be seen, both hydrographs look very similar showing near simultaneous response to cycles of pumping from the area's municipal wells. Most of the time, water level in the MGC Well is slightly higher compared to water level in ED-7. That difference in water level ranges from a fraction of a foot to over 2 feet. Most often the difference is



about half a foot. The more significant difference of 2 feet occurred on May 31 through June 1, 2005. Considering that the two wells are located about 7200 feet apart, hydraulic gradient between the wells is very small. STS suggests that this low gradient may be indicative of a side-gradient rather than up- or down-gradient relation between the two wells – see discussion included in Section 7.

The City of Edina will install a transducer in ED-7 in the near future. It is highly recommended that a full year of the continuous water level data be collected from both wells, ED-7 and MGC Well, at the same time. Such data will allow characterizing hydraulic gradients throughout the year between the areas of the City of Edina and the City of St. Louis Park.



## 6.0 ANALYTICAL RESULTS

## 6.1 VOC Data

All the STS and ENSR samples collected in April, May and June 2005 and also STS samples collected in a period from October 2004 through January 2005 (as reported in the Preliminary Data Report, STS, March 3, 2005) are presented in Tables 5A, 5B, 5C, and 5D. Figures 2, 3, 4 and 5 present a distribution of the measured concentrations of the four chlorinated solvent VOCs: tetrachloroethene (PCE), trichloroethene (TCE), 1,2-dichloroethene (1,2-DCE) and vinyl chloride. These are the main contaminants of concern for the Edina Well No. 7 Study.

As Figure 2 demonstrates, a significant chlorinated solvent contamination was detected in groundwater samples collected from several wells completed in the Drift formation. The highest concentrations were measured in W136, P308, P109, P8 and W117. These wells with elevated contamination are separated by many other wells with much lower contamination or no detected contamination. This spatial pattern suggests the presence of several independent sources of contamination.

As Figure 3 demonstrates, the area of a very high chlorinated solvents' contaminated groundwater in the Platteville Limestone formation is delineated by the following wells: W421, W437, W434, W438, W431 and W143. In the other wells, contamination is much lower or not detected. The highest concentration of PCE was measured in a groundwater sample collected from W437 – 13,000  $\mu$ g/L. It is interesting to note that the very high PCE concentrations were also detected in MW-3S on Schloff property, in 1989 (12,000  $\mu$ g/L) and in MW-104 on Lindberg Heat Treating property, in 1993 (51,000  $\mu$ g/L) – see Table 1 and Figure 1. This area of high contamination within the Platteville Limestone roughly corresponds to the area of high contamination within the Drift formation.

As Figure 4 illustrates, groundwater within the St. Peter Sandstone formation is only slightly contaminated with chlorinated solvents. Out of the eight St. Peter wells that were sampled, chlorinated solvents were detected in only four wells: W409, W133, W21 and



W411. These concentrations are lower than the concentrations detected in the PDCJ formation (see Figure 5).

Several other VOCs were detected in the sampled wells as illustrated in Tables 5A, 5B, 5C, and 5D. The most notable is the presence of benzene, 1,1-dichloroethene and naphthalene detected in concentrations above drinking water standards in several wells completed in the Drift and Platteville formations.

#### 6.2 Tritium Results

The results of tritium analysis of the four samples collected from the ED-7 well on January 20, 2005 are presented in Table 6. The samples were collected using the Century Discrete Sampler from four depths within the open section of the well: 360 feet, 400 feet, 450 feet and 500 feet below the top-of-casing. The results illustrate the presence of a distinct stratification of water within this well. That stratification is expressed by a sharp difference in VOC contamination levels (see Table 5D), noticeable differences in measured general chemistry parameters (see STS, March 2005, Table 6) and tritium levels.

High tritium content was measured in water from 400, 450 and 500 feet samples – 14 tritium units (TU). This indicated the presence of young, recent water. Water collected from these depths was VOC contaminated, as opposed to water from the 360 feet sample. Down-hole video revealed the presence of a distinct active fracture zone in ED-7 at a depth of 395 feet. This zone shows groundwater movement. The zone is also marked on geophysical logs by change in fluid resistivity and temperature. Above that 395 feet zone, no VOCs are detected in groundwater, except for toluene. Also, private wells south and west of ED-7 that are completed in the top portion of the Prairie du Chien formation (above that 395 feet zone) show no VOCs contamination (see STS, March 3, 2005).

Tritium was not detected in the 360 feet deep sample. This indicates the presence of an old, "vintage" water – water that entered the ground before 1953.



#### 7.0 DISCUSSION

Except for the PDCJ wells, all of the sampled wells are within the boundaries of the City of St. Louis Park. This concentration of the wells and analytical results in one area is the consequence of the following two factors:

- The conceptual model offered in the Preliminary Data Report (STS, March 3, 2005)
  was based on the assumption that VOC contaminants detected in the ED-7 well
  originated in the area near the intersection of Highway 7 and Louisiana Avenue,
  within the limits of the City of St. Louis Park;
- The south-central portion of the City of St. Louis Park territory has been for decades the area of concentrated industrial and commercial activities. Several facilities caused soil and groundwater contamination that was, next, subject to numerous environmental investigations. This is the area with an abundance of shallow and deep groundwater wells, many of which are available for sampling.

Since STS issued the Preliminary Data Report (STS, March 3, 2005), data were accumulated that indicate that the original conceptual model (a source area north of ED-7) may not be the only possible explanation of the groundwater contaminant transport to the ED-7 well. Another possibility is that a portion or all of the contaminants that were detected in ED-7 may have originated in the southern portion of the City of Hopkins west of ED-7. The following data are pointing toward that alternative possibility:

• Review of the MPCA files (see discussion in Section 3.0) revealed the presence of several industrial/commercial sites within the City of Hopkins and the City of Minnetonka (one site) where chlorinated solvents where detected in shallow groundwater in the past. The concentrations detected in the early 1990s were comparable to the concentrations detected recently in the Drift wells within the City of St. Louis Park. As Figure 1 illustrates, these Hopkins sites are located within or close to the location of the buried bedrock valley. In the central portion of that valley, the Glenwood Shale confining unit was eroded away (as is the case with another branch of the buried bedrock valley located southeast of the Reilly Tar Site). The Basal St. Peter formation, that constitutes the second barrier to groundwater movement from



the surface to the PDCJ aquifer system, was also removed by erosion. In such areas the Drift formation is directly on top of the PDCJ formation and contaminants migrating within the shallow Drift formation may enter directly to the PDCJ formation.

- The combined hydrograph of the ED-7 well and MGC well (Figures 6 and 7) indicate minimal differences in water level elevation between the two wells. Given the considerable distance between the wells, 7,200 feet, hydraulic gradient between the wells is very low. This indicates a side-gradient rather that up-gradient/down-gradient relationship between the two wells. If such is the case, groundwater flows toward both wells from the west and not from the MGC well to the ED-7 well.
- Both of the two cases of the calibrated Reilly Tar Site Groundwater Model (see STS, May 2005) indicate regional groundwater flow direction within the PDCJ formation from the west to the east (or from southwest to northeast) and not from the north to the south (see Figures 8 and 9). Despite various efforts and using different pumping configurations, neither of these model cases could be forced to simulate groundwater flow from the southern portion of St. Louis Park to the ED-7 well.
- Very minimal contamination detected in the wells completed within the St. Peter Sandstone (that is "sandwiched" between the Platteville and PDCJ aquifers) puts to question a conceptual model that postulates that the St. Louis Park source area contaminants migrate mainly from the Platteville aquifer through the intermediate St. Peter aquifer to the deeper PDCJ aquifer system.

The presence of a young, recent groundwater at greater depths in the ED-7 well indicates that shallow, contaminated water may migrate relatively fast along some preferential pathways (sand and gravel bodies within the Drift formation, fracture zones within Prairie du Chien formation) into deeper zones of the aquifers, while shallower groundwater in the top portion of the Prairie du Chien formation, and perhaps, St. Peter Sandstone circulates much slower and is much older.



## 8.0 RECOMMENDATIONS

The following additional work is recommended to verify which of the two conceptual models discussed above is more likely to describe the groundwater system and contaminant transport more accurately.

- Survey of the existing wells within the area of western Edina, Hopkins and Minnetonka. That survey should strive to identify the candidate wells for sampling. This survey is likely to reveal that the important areas west of Edina Well No. 7 (mainly residential areas) lack deeper wells and, therefore, tracing contaminant movement from that direction may not be possible without installing additional monitoring wells.
- Conduct land use and source characterization investigation of the south portion of the City of Hopkins. That characterization would include reviewing the history of commercial and industrial activities. The objective is to verify and expand upon what was established during the search for historical VOCs data, as discussed in Section 3.0.
- Conduct periodic sampling for VOCs from the newly identified wells as well as from the wells that were recently sampled for VOCs this first time.
- Continue water level monitoring. Two types of monitoring should be conducted: summer/winter monitoring of many wells within the limits of St. Louis Park, Edina and Hopkins; and continuous monitoring at selected wells with the use of dataloggers/ transducers.
- Expand the Reilly Tar Groundwater Model to include the Platteville and Drift formations. Such an expanded model would assist in evaluating the new suspected and potential contaminant pathways connecting ED-7 and contaminant sources.
- Reconstruct historical pumping within St. Louis Park, Edina, Minnetonka and Hopkins in the groundwater model.



 Conduct tritium and general chemistry analysis of samples collected from selected wells to help develop a better understanding of the groundwater system and to guide possible remedial actions.



## 9.0 REFERENCES

- Olsen, B.M., B.A. Bloomgren, 1989. Bedrock Geology Geologic Atlas, Hennepin County, Minnesota, County Atlas Series, Atlas C-4, Plate 2 of 9.
- STS, March 3, 2005. City of Edina Well No. 7 Study, July 2004 to March 2005 Preliminary Data Report. Prepared for the Minnesota Pollution Control Agency, STS Project 99613-XB.
- STS, May 27, 2005. Land Use and Source Characterization Survey Edina Well Evaluation. Prepared for the Minnesota Pollution Control Agency, STS Project 99613-XB.
- STS, May 31, 2005. Reilly Tar Site / Meadowbrook Groundwater Model Set-up and Calibration Report. Prepared for the Minnesota Pollution Control Agency, STS Project 99330-XD.





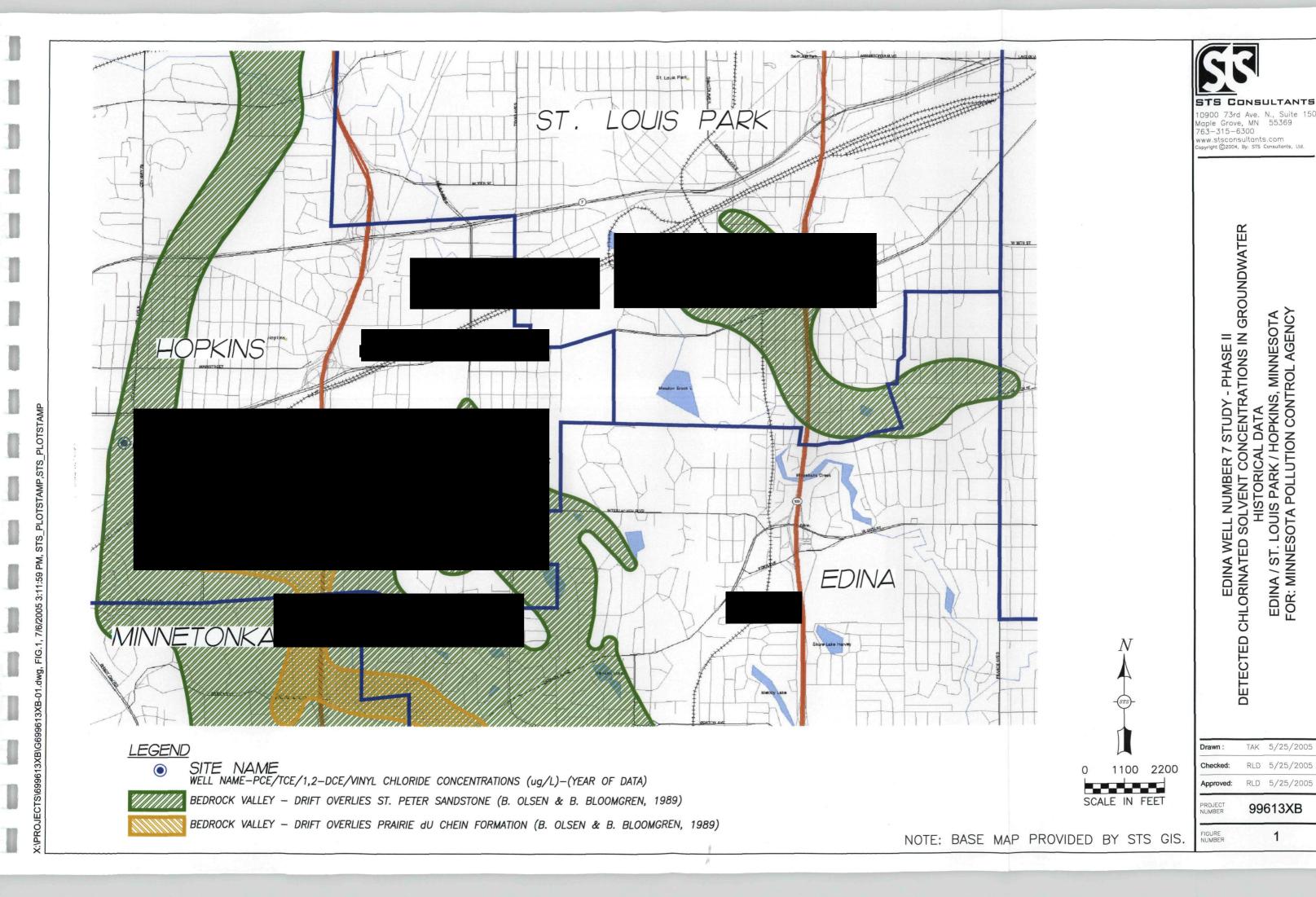
THE

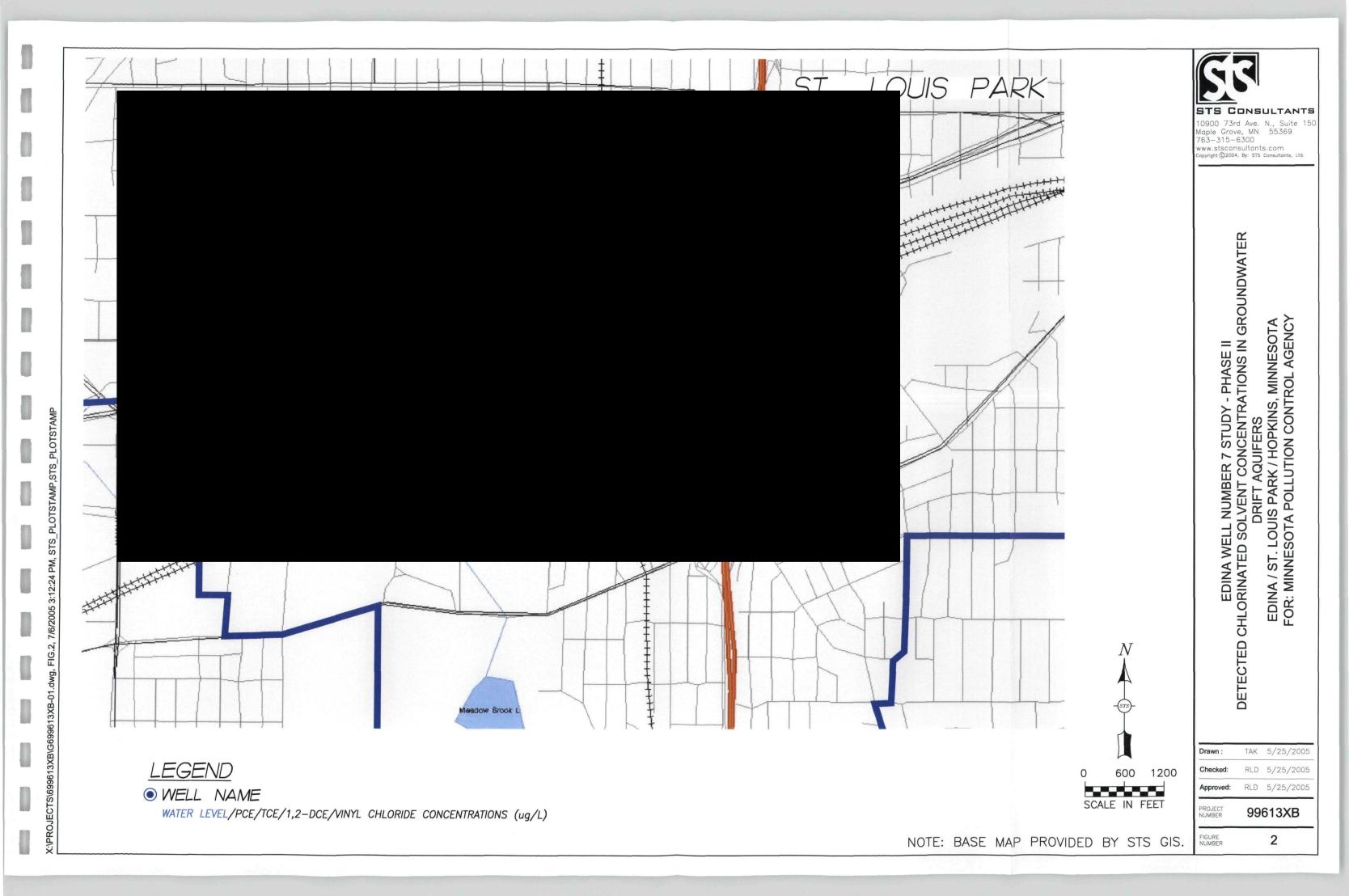
INFRASTRUCTURE

**IMPERATIVE** 

Figures

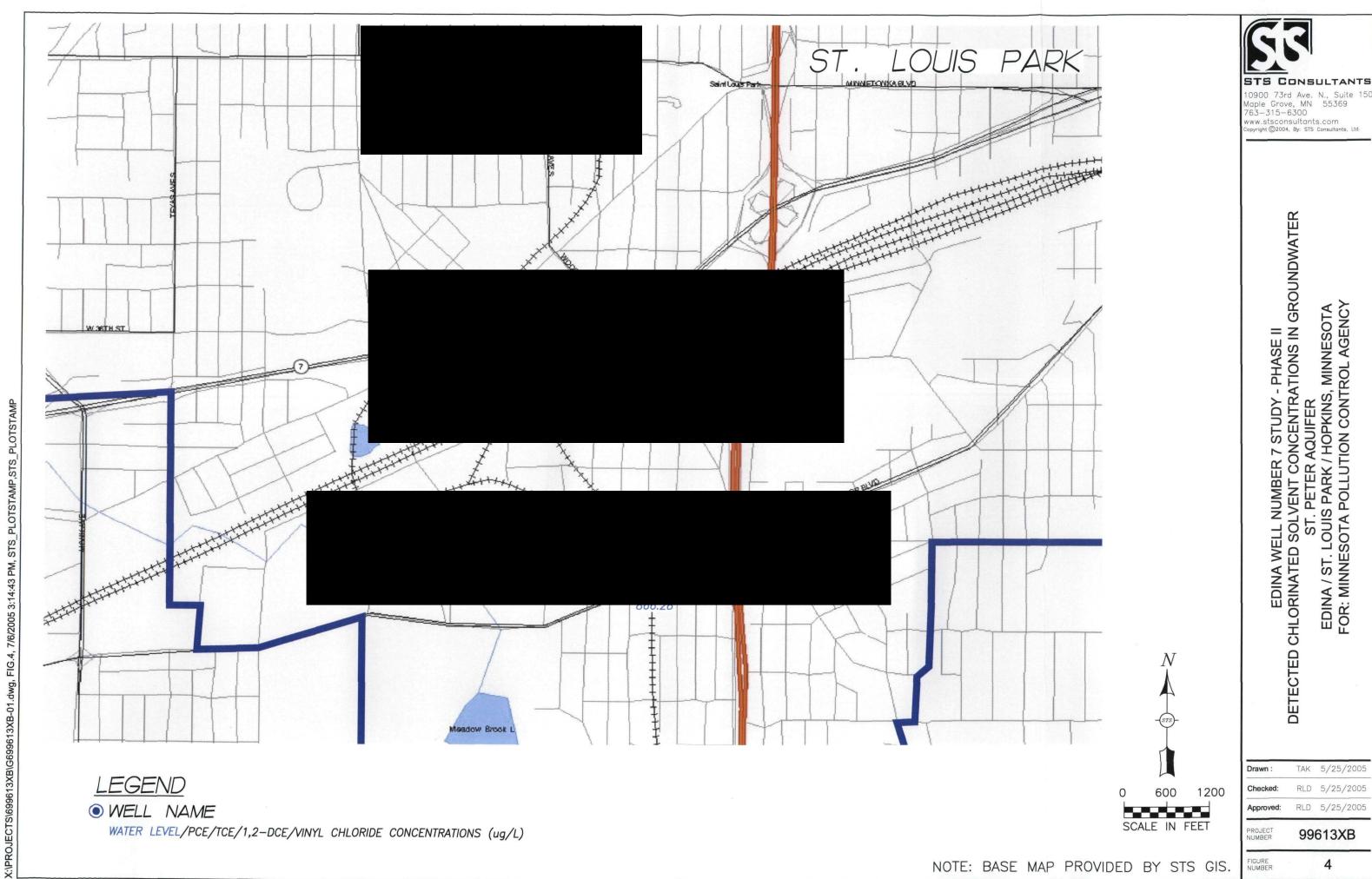








TAK 5/25/2005 RLD 5/25/2005 RLD 5/25/2005



TAK 5/25/2005 RLD 5/25/2005

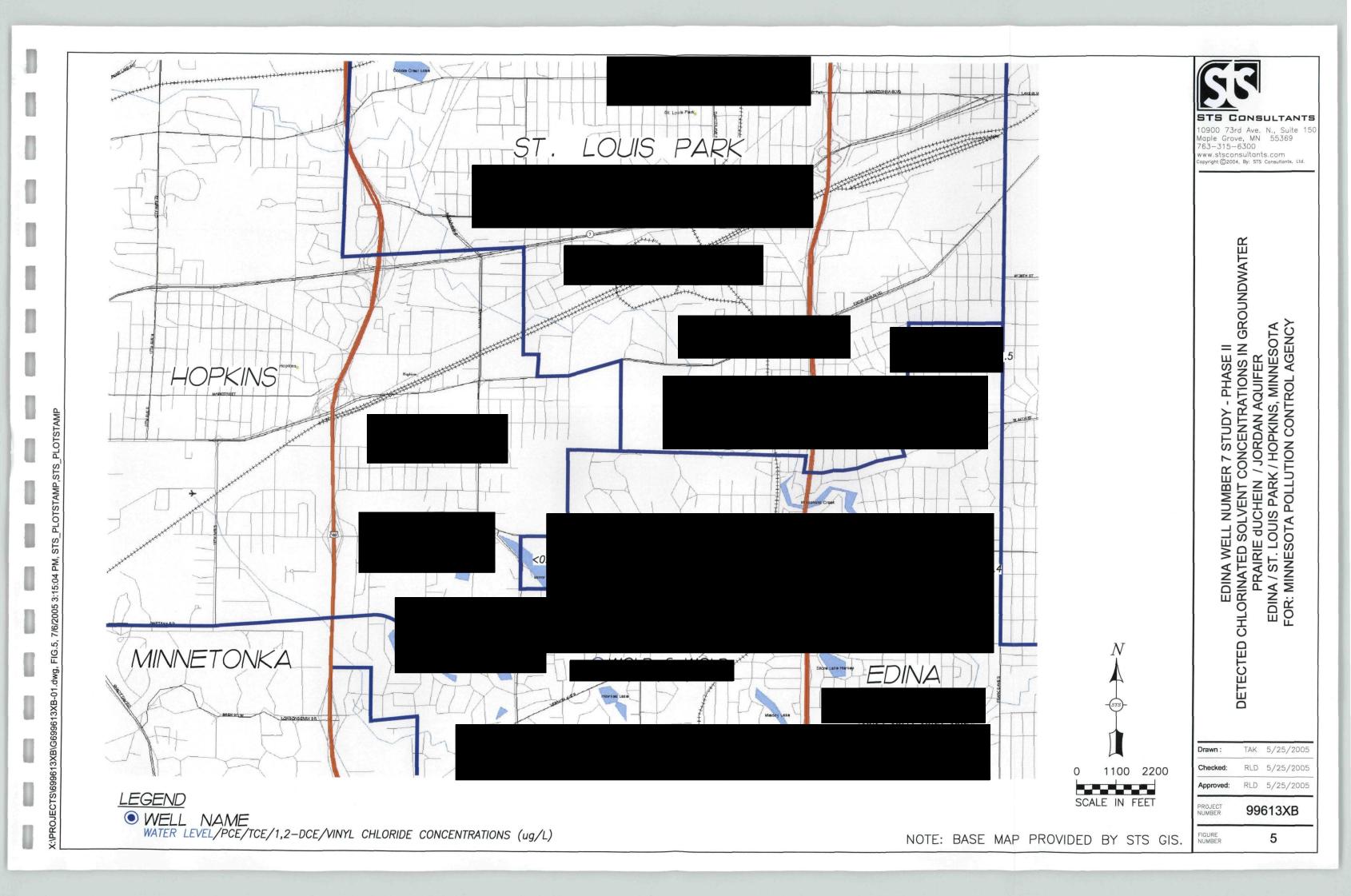


Figure 6. Water Level Fluctuations - March to June 2005 Edina Well No. 7 and Meadowbrook Golf Course Well City of Edina Well No. 7 Study - Phase II STS Project No. 99613-XB

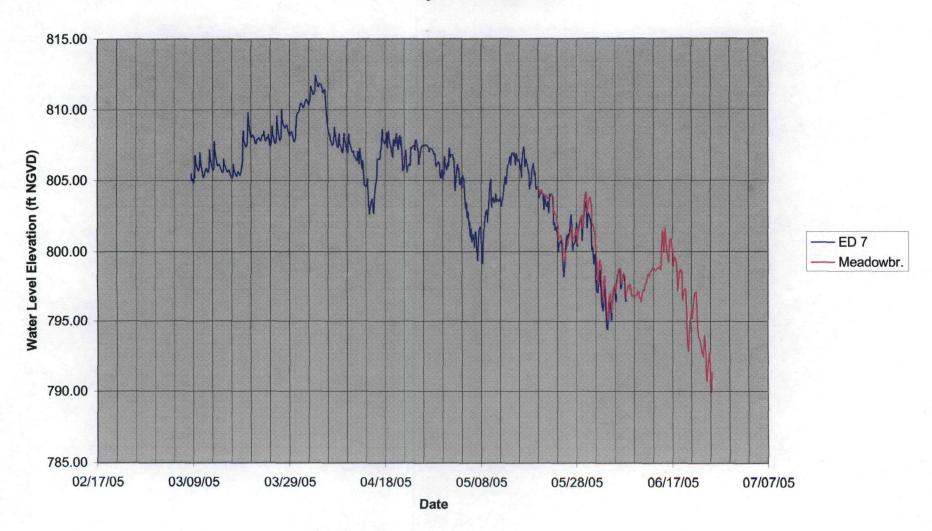


Figure 7. Water Level Fluctuations - May to June 2005
Edina Well No. 7 and Meadowbrook Golf Course Well
City of Edina Well No. 7 Study - Phase II
STS Project No. 99613-XB

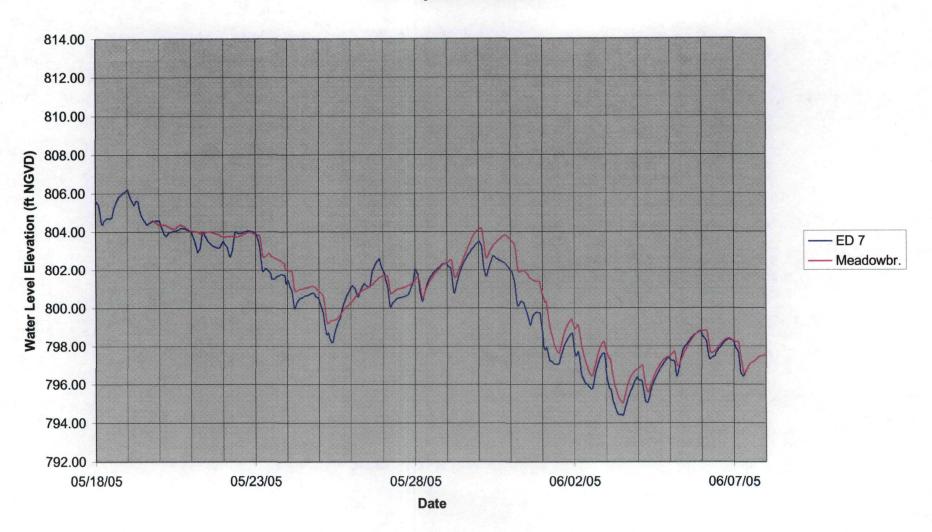


Figure 8. Prairie du Chien / Jordan Aquifer Potentiometric Surface

as Simulated by the Reilly Tar Site Groundwater Model - Low Transmissivity Version (STS Project 99330-XD)

City of Edina Well No. 7 Study - Phase II, STS Project No. 99613-XB

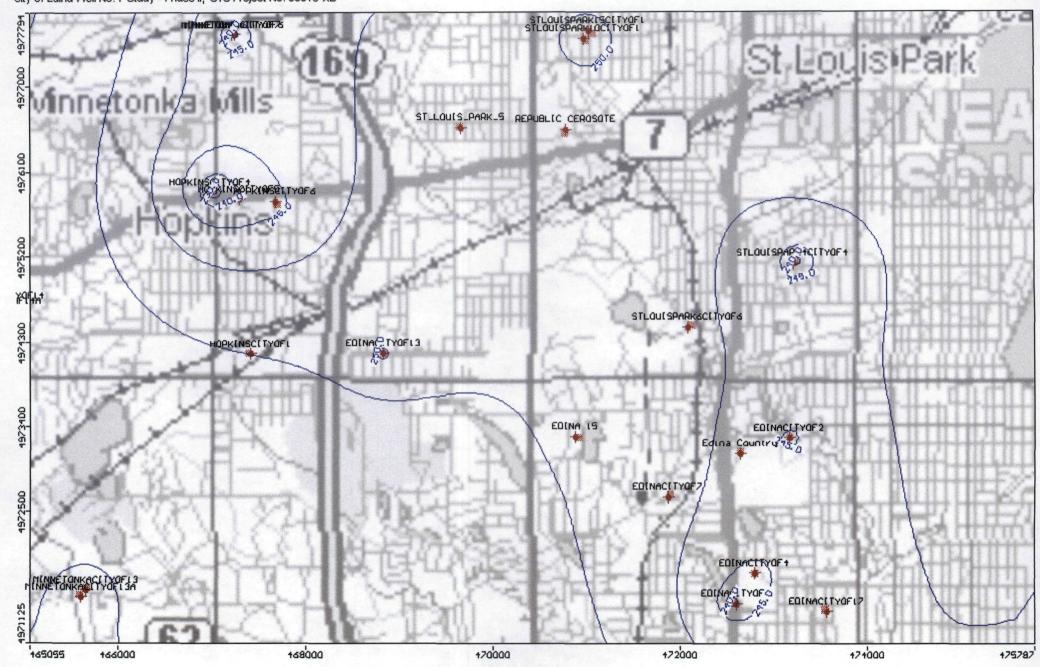
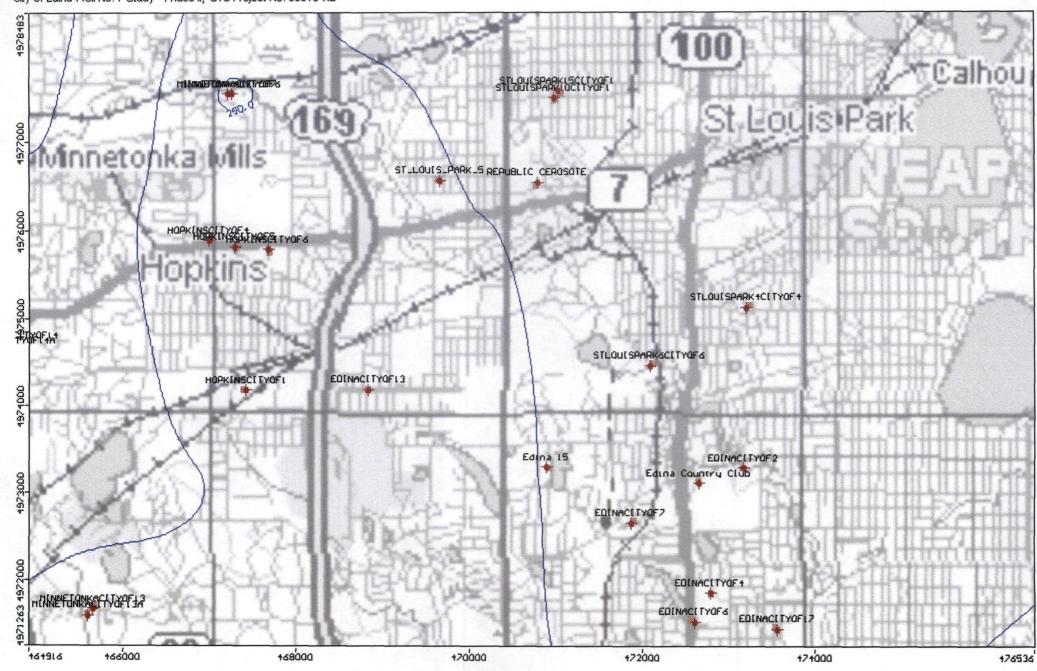


Figure 9. Prairie du Chien / Jordan Aquifer Potentiometric Surface

'as Simulated by the Reilly Tar Site Groundwater Model - High Transmissivity Version (STS Project 99330-XD)

City of Edina Well No. 7 Study - Phase II, STS Project No. 99613-XB





**(** 

THE

INFRASTRUCTURE

**IMPERATIVE** 

Tables



# Table 1. Historical VOCs Data - MPCA File Revies City of Edina Well No. 7 Study - Phase II STS Project No. 99613-XB

Plant .									
	Well Name	Data City	Date Sampled	Analyte	Results	Unit	Code	Source	Notes
	.MW-1	Hopkins	8/25/1994	trans-1,2-Dichloroethene	0.99	ug/L	•	/P 13880), Quarterly Monitoring lis Geraghty & Miller, Inc., July	Unpermitted Dump
	MVV-1	Hopkins	8/25/1994	cis-1,2-Dichlorpethene	1.2	ug/L	as above		Unpermitted Dump
	MW-1	Hopkins	8/25/1994	Trichloroethene	1.0	ug/L	as above		Unpermitted Dump
	MW-2	Hopkins	8/25/1994	Trichloroethene	3.0	ug/L	as above		Unpermitted Dump
	MW-2	Hopkins	3/13/2000	Trichloroethene	1.2	ug/L	as above		Unpermitted Dump
	MW-3	Hopl.ins	8/25/1994	trans-1,2-Dichloroethene	0.99	ug/L	as above		Unpermitted Dump
	MW-3	Hopkins	8/25/1994	cis-1.2-Dichloroethene	1.5	ug/L	as above		Unpermitted Dump
	MW-3	Hopkins	8/25/1994	Trichloroethene	2.6	ug/L	as above		Unpermitted Dump
	10177-0	Поргана	0/20/1994	Mentorogueno	2.0	ug/ L	as above		Onpennicioa Damp
	MVV 10-4	Hopkins	2/1/1991	Vinyt Chloride	150	ug/L	Baseline Sam	ary Landfill, SW-58, Third pling, Braun Environmental March 4, 1991.	State Closed Landfill
	MW 104	Hopkins	2/1/1991	cis-1,2-Dichloroethene	2400	ug/L	as above		State Closed Landfill
	MW 104	Hoplins	2/1/1991	Trichloroethene	220	ug/L	as above		State Closed Landfill
	MW107	Hopkins	2/1/1991	Vinyl Chloride	200	ug/L	as above		State Closed Landfill
	MW107	Hopkins	2/1/1991	cis-1,2-Dichloroethene	2200	ug/L	as above		State Closed Landfill
	MVV107	Hopkins	2/1/1991	Trichloroethene	97	ug/L	as above		State Closed Landfill
	MW107	Hoplins	2/1/1991	Tetrachloroethene	1.6	ug/L	as above		State Closed Landfill
	MVV-1	Hopkins	2/1/1991	Vinyl Chloride	20	ug/L	as above		State Closed Landfill
<b>4</b>	MW-2	Hopkins	10/5/1998	Trichloroethene	1.3	ug/L	Sather's, VP 9	9680	Voluntary Investigation & Cleanup Site
4	MW-22	Hopkins	2/27/1992	Tetrachloroethene	110	ug/L	Action & Design	ia Serv. PT 3580. Remedial gn, Fourth Qtr Monitoring , Feb. 12, 1996	Voluntary Investigation & Cleanup Site
	MVV-1	Hopkins	7/24/1991	Tetrachloroethene	5.2	ug/L	Ground Water	netonka, PT 2150, Results of Monitoring, Delta Consultants, Inc., October 7,	Voluntary Investigation & Cleanup Site
	W2	Hopkins	4/16/1993	Tetrachloroethene	26	ug/L		nical Center, Phase II Subsurface Investigation,	Voluntary Investigation & Cleanup Site
	W4)	Hopkins	1/26/1989	Vinyl Chloride	160	ug/L	as above	, 1000	as above
		0 Hopkins	1/26/1989	cis-1,2-Dichloroethene	8.4	ug/L	as above		as above
-	Wd	Hopkins	1/26/1989	Trichloroethene	14	ug/L	as above		as above
	W4	Hopkins	1/26/1989	Tetrachloroethene	160	ug/L	as above		as above
	W6	Hopkins		1,2-Dichloroethene (Total)		ug/L	as above		as above
	W6	Hopkins	1/26/1989	Trichloroethene	60	ug/L			as above
	W6	Hopkins	1/26/1989	Tetrachloroethene	880		as above		as above
	***	порыть	1/20/1969	retrachioroethene	860	ug/L	as above		as above
	MVV-104	St. Louis Park	11/12/1993	cis-1,2-Dichloroethene	12	ug/L	Trichloroethyle Investigation a	It Treating PT 4800 RI/FS. ne Release Remedial nd Corrective Action, Rust nd Infrastructure, April 1994.	Voluntary Investigation & Cleanup Site
- Albin	MW-104	St. Louis Park	11/12/1993	Trichloroethene	58	ug/L	as above	•	as above
	MW-101	St. Louis Park	11/12/1993	Tetrachloroethene	29	ug/L	as above		as above
	TW3	St. Louis Park	11/12/1993	Trichloroethene	51000	ug/L	as above		as above
a <b>d</b> i	MW-3S	St. Louis Park	6/22/1989	Tetrachloroethene	12000	ug/L	Schloff Chemic Report, Delta,	cal, Environmental Investigation 1990	Voluntary Investigation & Cleanup Site

4ffiri

# Table 2. Historical VOCs Data - MDH Database City of Edina Well No. 7 Study - Phase II STS Project No. 99613-XB

	Well Name	Data City	Date Sampled	Analyte	Results	. Unit	Code	Source
<b>b</b>	WELL #15	Edina	6/6/1994	1,1,1-Trichloroethane	0.30	ug/L	Minn	esota Department of Health Database
	W ELL #15	Edina	6/6/1994	cis-1,2-Dichloroethene	0.50	ug/L	Minn	esota Department of Health Database
	WELL #15	Edina	6/6/1994	Trichloroethene	1.30	ug/L		esota Department of Health Database
	WELL #15 ENTRY POINT	Edina	9/6/2002	1,1,1-Trichloroethane	0.90	ug/L		esota Department of Health Database
-4	WIELL #15 ENTRY POINT	Edina	9/6/2002	1,1-Dichloroethene	1.00	ug/L		esota Department of Health Database
_	WELL #15 ENTRY POINT	Edina	9/6/2002	cis-1,2-Dichloroethene	2.10	ug/L		esota Department of Health Database
	WELL #15 ENTRY POINT	Edina	9/6/2002	Tetrachloroethene	0.40	ug/L		esota Department of Health Database
	WELL #15 ENTRY POINT	Edina	9/6/2002	trans-1,2-Dichloroethene	0.20	ug/L		esota Department of Health Database
	WELL #15 ENTRY POINT	Edina	9/6/2002	Trichloroethene	1.50	ug/L		esota Department of Health Database
<b>.</b>	WELL #2	Edina	5/16/2001	cis-1,2-Dichloroethene	4.50	ug/L		esota Department of Health Database
	WELL #2	Edina	5/16/2001	trans-1,2-Dichloroethene	0.30	ug/L		esota Department of Health Database
	WELL #2	Edina	5/16/2001	Trichloroethene	0.70	ug/L	Minne	esota Department of Health Database
	WELL #2	Edina	5/16/2001	Vinyl chloride	0.80	ug/L	Minne	esota Department of Health Database
	WELL #7	Edina	6/6/1994	cis-1,2-Dichloroethene	0.40	ug/L	Minne	esota Department of Health Database
	WIELL #7	Edina	6/6/1994	Trichloroethene	1.00	ug/L	Minne	esota Department of Health Database
	WELL 13	Edina	5/3/2004	cis-1,2-Dichloroethene	1.10	ug/L	Minne	esota Department of Health Database
	WELL 13	Edina	5/3/2004	Trichloroethene	0.30	ug/L	Minne	esota Department of Health Database
	WELL 14	St. Louis Park	3/5/1993	cis-1,2-Dichloroethene	16.00	ug/L	Minne	esota Department of Health Database
	WELL 14	St. Louis Park	9/13/1993	cis-1,2-Dichloroethene	10.00	ug/L		esota Department of Health Database
hadi .	WELL 14	St. Louis Park	6/9/1994	cis-1,2-Dichloroethene	12.00	ug/L	Minne	esota Department of Health Database
	WELL 14	St. Louis Park	9/27/1994	cis-1,2-Dichloroethene	16.00	ug/L	Minne	esota Department of Health Database
	WIELL 14	St. Louis Park	3/2/1995	cis-1,2-Dichloroethene	13.00	ug/L		esota Department of Health Database
	WELL 14	St. Louis Park	6/14/1995	cis-1,2-Dichloroethene	14.00	ug/L		esota Department of Health Database
	WELL 14	St. Louis Park	3/5/1993	trans-1,2-Dichloroethene	4.10	ug/L		esota Department of Health Database
ш.	WELL 14	St. Louis Park	9/13/1993	trans-1,2-Dichloroethene	2.20	ug/L		esota Department of Health Database
	WELL 14	St. Louis Park	6/9/1994	trans-1,2-Dichloroethene	3.40	ug/L		sota Department of Health Database
	WELL 14 WELL 14	St. Louis Park	9/27/1994	trans-1,2-Dichloroethene	4.00	ug/L		sota Department of Health Database
	WELL 14	St. Louis Park	3/2/1995 0:00	trans-1,2-Dichloroethene	2.90	ug/L		sota Department of Health Database
	WELL 14	St. Louis Park St. Louis Park	6/14/1995 3/5/1993	trans-1,2-Dichloroethene	3.40	ug/L		esota Department of Health Database
	WELL 14	St. Louis Park	9/13/1993	Trichloroethene Trichloroethene	1.50 1.80	ug/L		sota Department of Health Database
ü	WELL 14	St. Louis Park	6/9/1994	Trichloroethene	1.90	ug/L		sota Department of Health Database
	WELL 14	St. Louis Park	9/27/1994	Trichloroethene	1.40	ug/L ug/L		sota Department of Health Database sota Department of Health Database
	WELL 14	St. Louis Park	3/2/1995	Trichloroethene	1.80	ug/L		sola Department of Health Database
	WELL 14	St. Louis Park	6/14/1995	Trichloroethene	2.20	ug/L		sota Department of Health Database
	WELL 15	Edina	5/12/1995	1,1,1-Trichloroethane	0.70	ug/L		sota Department of Health Database
	WELL 15	Edina	5/29/1998	1,1,1-Trichloroethane	0.20	ug/L		sota Department of Health Database
	WELL 15	Edina	5/3/2004	1,1,1-Trichloroethane	1.00	ug/L		sota Department of Health Database
	WELL 15	. Edina	5/3/2004	1,1-Dichloroethene	1.00	ug/L		sota Department of Health Database
	WELL 15	Edina	6/23/1993	cis-1,2-Dichloroethene	0.30	ug/L		sota Department of Health Database
	WELL 15	Edina	5/12/1995	cis-1,2-Dichloroethene	0.20	ug/L	Minne	sota Department of Health Database
	WELL 15	Edina	5/29/1998	cis-1,2-Dichloroethene	3.00	ug/L	Minne	sota Department of Health Database
	WELL 15	Edina	6/17/1999	cis-1,2-Dichloroethene	0.30	ug/L	Minne	sota Department of Health Database
	WELL 15	Edina	5/16/2001	cis-1,2-Dichloroethene	4.50	ug/L	Minne.	sota Department of Health Database
	WELL 15	Edina	5/3/2004	cis-1,2-Dichloroethene	2.60	ug/L	Minne	sota Department of Health Database
ut.	WELL 15	Edina	5/16/2001	trans-1,2-Dichloroethene	0.20	ug/L		sota Department of Health Database
	WELL 15	Edina	6/23/1993	Trichloroethene	1.10	ug/L		sota Department of Health Database
	WELL 15	Edina	9/21/1993	Trichloroethene	0.20	ug/L		sota Department of Health Database
	WELL 15 WELL 15	Edina	9/7/1994	Trichlorgethene	0.50	ug/L		sota Department of Health Database
	WELL 15	Edina Edina	10/4/1994	Trichloroethene	0.40	ug/L		sota Department of Health Database
	WELL 15	Edina	5/12/1995 5/29/1998	Trichloroethene	1.20	ug/L		sota Department of Health Database
į.	WELL 15	Edina	6/17/1999	Trichloroethene Trichloroethene	1.30 0.10	ug/L		sota Department of Health Database
	WELL 15	Edina	5/16/2001	Trichloroethene	0.10	ug/L ug/L		sota Department of Health Database sota Department of Health Database
	WELL 15	Edina	5/3/2004	Trichloroethene	1.50	ug/L		
	WELL 15	Edina	5/16/2001	Vinyl chloride	0.60	ug/L		sota Department of Health Database sota Department of Health Database
	WELL 15 - ANNUAL	Edina	6/6/1997	1,1,1-Trichloroethane	0.20	ug/L		sota Department of Health Database
<b>₹</b> I	WELL 15 - ANNUAL	Edina	6/6/1997	1,1-Dichloroethene	0.60	ug/L		sota Department of Health Database
	WELL 15 - ANNUAL	Edina	6/6/1997	cis-1,2-Dichloroethene	0.30	ug/L		sota Department of Health Database
	WELL 15 - ANNUAL	Edina	6/6/1997	Trichloroethene	0.80	ug/L		sota Department of Health Database
	WELL 15 ENTRY POINT	Edina	8/28/2001	1,1,1-Trichloroethane	0.30	ug/L		sota Department of Health Database
	WELL 15 ENTRY POINT	Edina	10/31/2001	1,1,1-Trichloroethane		ug/L		ota Department of Health Database
ėı .	WELL 15 ENTRY POINT	Edina	6/26/2003	1,1,1-Trichloroethane		ug/L		sota Department of Health Database
	WIELL 15 ENTRY POINT	Edina	7/23/2003	1,1,1-Trichloroethane		ug/L		sota Department of Health Database
	WELL 15 ENTRY POINT	Edina	7/14/2004	1,1,1-Trichloroethane		ug/L		tota Department of Health Database
	WIELL 15 ENTRY POINT	Edina	10/31/2001	1,1-Dichloroethene		ug/L		ota Department of Health Database
	WELL 15 ENTRY POINT	Edina	7/23/2003	1,1-Dichloroethene		ug/L		ota Department of Health Database
<b>)</b>	WELL 15 ENTRY POINT	Edina	7/14/2004	1,1-Dichloroethene		ug/L		ota Department of Health Database
	WIELL 15 ENTRY POINT	Edina	8/28/2001	cis-1,2-Dichloroethene		ug/L		ota Department of Health Database
	WIELL 15 ENTRY POINT	Edina	10/31/2001	cis-1,2-Dichloroethene		ug/L		ota Department of Health Database
	WIELL 15 ENTRY POINT	Edina	6/26/2003	cis-1,2-Dichloroethene		ug/L		ota Department of Health Database
	WELL 15 ENTRY POINT	Edina	7/23/2003	cis-1,2-Dichloroethene		ug/L		ota Department of Health Database
D-	WELL 15 ENTRY POINT	Edina	7/14/2004	cis-1,2-Dichloroethene		ug/L		ota Department of Health Database
	WIELL 15 ENTRY POINT	Edina	7/23/2003	Tetrachloroethene		ug/L		ota Department of Health Database
	WELL 15 ENTRY POINT	Edina		trans-1,2-Dichloroethene		ug/L		ota Department of Health Database
	WELL 15 ENTRY POINT	Edina		trans-1,2-Dichloroethene		ug/L		ota Department of Health Database
	WIELL 15 ENTRY POINT	Edina		trans-1,2-Dichloroethene		ug/L		ota Department of Health Database
10.	WELL 15 ENTRY POINT	Edina	8/28/2001	Trichlorgethene		ug/L		ota Department of Health Database
			-		,	•		-1

# Table 2. Historical VOCs Data - MDH Database City of Edina Well No. 7 Study - Phase II STS Project No. 99613-XB

	WELL 15 ENTRY POINT	Edina	10/31/2001	Trichloroethene	1.00	ua/l	Mineseste Department of Health Database
					1.20	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT	Edina	6/26/2003	Trichloroethene	0.70	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT	Edina	7/23/2003	Trichloroethene	0.80	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT	Edina	7/14/2004	Trichloroethene	1.30	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT	Edina	10/31/2001	Vinyl chloride	0.70	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT	Edina	7/14/2004	Vinyl chloride	0.60	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT (SL112.5)	Edina	7/7/2000	1,1-Dichloroethene	0.60	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT (SL112.5)	Edina	7/7/2000	cis-1,2-Dichloroethene	3.20	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT (SL112.5)	Edina	7/7/2000	trans-1,2-Dichloroethene		ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT (SL112.5)	Edina	7/7/2000	Trichloroethene	1.00	ug/L	Minnesota Department of Health Database
	WELL 15 ENTRY POINT (SL112.5)	Edina	7/7/2000	Vinyl chloride	0.90	ug/L	Minnesota Department of Health Database
	WELL 2	Edina	3/16/2004	cis-1,2-Dichloroethene			•
hdi)	WELL 2				3.50	ug/L	Minnesota Department of Health Database
		Edina	5/3/2004	cis-1,2-Dichloroethene	3.80	ug/L	Minnesota Department of Health Database
	WELL 2	Edina	3/16/2004	trans-1,2-Dichloroethene	0.20	ug/L	Minnesota Department of Health Database
	WELL 2	Edina	5/3/2004	trans-1,2-Dichloroethene	0.20	ug/L	Minnesota Department of Health Database
	WELL 2	Edina	3/16/2004	Trichloroethene	0.40	ug/L	Minnesota Department of Health Database
	WELL 2	Edina	5/3/2004	Trichloroethene	0.40	ug/L	Minnesota Department of Health Database
	WELL 2	Édina	3/16/2004	Vinyl chloride	0.70	ug/L	Minnesota Department of Health Database
	WELL 2	Edina	5/3/2004	Vinyl chloride	0.60	ug/L	Minnesota Department of Health Database
	WELL 4	St. Louis Park	5/24/1996	Benzene	0.20	ug/L	Minnesota Department of Health Database
	WELL 4	St. Louis Park	5/14/2004	Benzene	0.30	ug/L	Minnesota Department of Health Database
	WFLL 4	St. Louis Park	5/24/1996	cis-1,2-Dichloroethene	2.10	ug/L	Minnesota Department of Health Database
het)	WELL 4	St. Louis Park	5/14/2004	cis-1,2-Dichloroethene	2.00	ug/L	Minnesota Department of Health Database
	WELL 4	St. Louis Park	5/24/1996	trans-1,2-Dichloroethene	0.30		·
	WELL 4					ug/L	Minnesota Department of Health Database
		St. Louis Park	5/14/2004	trans-1,2-Dichloroethene	0.30	ug/L	Minnesota Department of Health Database
	WELL 4	St. Louis Park	5/24/1996	Trichloroethene	2.60	ug/L	Minnesota Department of Health Database
	WELL 4	St. Louis Park	5/14/2004	Trichloroethene	2.00	ug/L	Minnesota Department of Health Database
Mi	WELL 4	St. Louis Park	5/24/1996	Vinyl chloride	1.00	ug/L	Minnesota Department of Health Database
	WELL 4	St. Louis Park	3/16/2004	Vinyl chloride	1.10	ug/L	Minnesota Department of Health Database
	WELL 4	St. Louis Park	5/14/2004	Vinyl chloride	1.30	ug/L	Minnesota Department of Health Database
	WELL 6	St. Louis Park	5/14/2004	Benzene	0.70	ug/L	Minnesota Department of Health Database
	WELL 6	St. Louis Park	5/14/2004	cis-1,2-Dichloroethene	23.00	ug/L	Minnesota Department of Health Database
ke:	WELL 6	St. Louis Park	5/14/2004	trans-1,2-Dichloroethene	1.30	υg/L	Minnesota Department of Health Database
	WELL 6	St. Louis Park	5/14/2004	Trichloroethene	7.50	ug/L	Minnesota Department of Health Database
	WELL 6	St. Louis Park	5/14/2004	Vinyl chloride	4.00	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	3/22/1993	1,1-Dichloroethene	0.80	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	9/21/1993	1,1-Dichloroethene	0.40		Minnesota Department of Health Database
						ug/L	•
4	WELL 7	Edina	9/7/1994	1,1-Dichloroethene	1.20	ug/L	Minnesota Department of Health Database
•	WELL 7	Edina	5/12/1995	1,1-Dichloroethene	0.60	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	6/17/1999	1,1-Dichloroethene	0.90	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	5/16/2001	1,1-Dichloroethene	0.60	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	3/22/1993	cis-1,2-Dichloroethene	0.70	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	9/21/1993	cis-1,2-Dichloroethene	0.30	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	9/7/1994	cis-1,2-Dichloroethene	1.00	ug/L	Minnesota Department of Health Database
	WELL 7	St. Louis Park	9/27/1994	cis-1,2-Dichloroethene	2.40	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	10/4/1994	cis-1,2-Dichloroethene	0.40	ug/L	Minnesota Department of Health Database
	WE_L7	Edina	5/12/1995	cis-1,2-Dichloroethene	0.60	ug/L	Minnesota Department of Health Database
	WE_L 7	Edina	8/10/1995	cis-1,2-Dichloroethene	0.60	ug/L	Minnesota Department of Health Database
4	WELL 7	Edina	9/26/1995	cis-1,2-Dichloroethene	0.20	ug/L	Minnesota Department of Health Database
-	WELL 7	Edina	5/29/1998	cis-1,2-Dichloroethene			·
					2.80	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	6/17/1999	cis-1,2-Dichloroethene	1.50	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	5/16/2001	cis-1,2-Dichloroethene	5.50	ug/L	Minnesota Department of Health Database
	WELL 7	St. Louis Park	9/27/1994	trans-1,2-Dichloroethene	0.40	ug/L	Minnesota Department of Health Database
<b>i</b>	WELL 7	Edina	6/17/1999	trans-1,2-Dichloroethene	0.10	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	5/16/2001	trans-1,2-Dichloroethene	0.30	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	3/22/1993	Trichloroethene	1.20	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	6/23/1993	Trichloroethene	0.40	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	9/21/1993	Trichloroethene	0.90	ug/L	Minnesota Department of Health Database
4.6.	WELL 7	Edina	3/7/1994	Trichloroethene	0.40	ug/L	Minnesota Department of Health Database
-	WELL 7	Edina	9/7/1994	Trichloroethene	1.70	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	10/4/1994	Trichloroethene	0.60	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	5/12/1995	Trichloroethene	1.20	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	8/10/1995	Trichloroethene	0.70	ug/L	Minnesota Department of Health Database
	WELL 7			Trichloroethene			•
		Edina	9/26/1995		0.50	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	5/29/1998	Trichloroethene	0.80	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	6/17/1999	Trichloroethene	1.00	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	5/16/2001	Trichloroethene	1.30	ug/L	Minnesota Department of Health Database
	WELL 7	Edina	5/16/2001	Vinyt chloride	0.70	ug/L	Minnesota Department of Health Database
	WELL 7 - /.NNUAL	Edina	6/6/1997	cis-1,2-Dichloroethene	2.20	ug/L	Minnesota Department of Health Database
	WELL 7 - ANNUAL	Edina	6/6/1997	Trichloroethene	0.70	ug/L	Minnesota Department of Health Database
	WELL 7 ANNUAL	Edina	9/3/1996	Trichloroethene	0.60	ug/L	Minnesota Department of Health Database
	WELL 7 EFFI	Edina	5/23/2002	1,1-Dichloroethene	0.70	ug/L	Minnesota Department of Health Database
	WELL 7 EFFI	Edina	5/23/2002	Benzene	0.40		· ·
						ug/L	Minnesota Department of Health Database
	WELL 7 EF FI	Edina	5/23/2002	cis-1,2-Dichloroethene	18.00	ug/L	Minnesota Department of Health Database
	WELL 7 EFFI	Edina	5/23/2002	trans-1,2-Dichloroethene	0.80	ug/L	Minnesota Department of Health Database
	WELL 7 EFFI	Edina	5/23/2002	Trichloroethene	2.00	ug/L	Minnesota Department of Health Database
	WELL 7 EFFI	Edina	5/23/2002	Vinyl chloride	2.30	ug/L	Minnesota Department of Health Database
	WELL 7 ENTRY POINT	Edina	10/29/2001	1,1-Dichloroethene	0.70	ug/L	Minnesota Department of Health Database
	WELL 7 ENTRY POINT	Edina	6/26/2003	1,1-Dichloroethene	0.50	ug/L	Minnesota Department of Health Database
	WELL 7 ENTRY POINT	Edina	7/23/2003	1,1-Dichloroethene	0.50	ug/L	Minnesota Department of Health Database
	* * * * *			,		-5-	

## Table 2. Historical VOCs Data - MDH Database City of Edina Well No. 7 Study - Phase II STS Project No. 99613-XB

WELL 7 ENTRY POINT	Edina	8/28/2001	Benzene	0.30	ug/L
WELL 7 ENTRY POINT	Edina	6/26/2003	Benzene	0.40	ug/L
WELL 7 ENTRY POINT	Edina	7/23/2003	Benzene	0.50	ug/L
WELL 7 ENTRY POINT	Edina	8/28/2001	cis-1,2-Dichloroethene	12.00	ug/L
WELL 7 EINTRY POINT	Edina	10/29/2001	cis-1,2-Dichloroethene	11.00	ug/L
WELL 7 ENTRY POINT	Edina	6/26/2003	cis-1,2-Dichloroethene	23.00	ug/L
WELL 7 EINTRY POINT	Edina	7/23/2003	cis-1,2-Dichloroethene	24.00	ug/L
WELL 7 EINTRY POINT	Edina	8/28/2001	trans-1,2-Dichloroethene	0.50	ug/L
WELL 7 EINTRY POINT	Edina	10/29/2001	trans-1,2-Dichloroethene	0.70	ug/L
WELL 7 EINTRY POINT	Edina	6/26/2003	trans-1,2-Dichtoroethene	0.90	ug/L
WELL 7 EINTRY POINT	Edina	7/23/2003	trans-1,2-Dichloroethene	0.90	υg/L
WELL 7 ENTRY POINT	Edina	8/28/2001	Trichloroethene	1.30	ug/L
WELL 7 ENTRY POINT	Edina	10/29/2001	Trichloroethene	0.90	ug/L
WELL 7 ENTRY POINT	Edina	6/26/2003	Trichloroethene	1.50	ug/L
WELL 7 ENTRY POINT	Edina	7/23/2003	Trichloroethene	1.70	ug/L
WELL 7 EINTRY POINT	Edina	8/28/2001	Vinyl chloride	1.20	ug/L
WELL 7 ENTRY POINT	Edina	10/29/2001	Vinyl chloride	1.60	ug/L
WELL 7 ENTRY POINT	Edina	6/26/2003	Vinyl chloride	3.10	ug/L
WELL 7 ENTRY POINT	Edina	7/23/2003	Vinyl chloride	3.10	ug/L
WELL 7 ENTRY POINT (SL166-6)	Edina	7/7/2000	1,1-Dichloroethene	1.00	ug/L
WELL 7 ENTRY POINT (SL166-6)	Edina	7/7/2000	cis-1,2-Dichloroethene	2.40	ug/L
WELL 7 ENTRY POINT (SL166-6)	Edina	7/7/2000	trans-1,2-Dichloroethene	0.20	ug/L
WELL 7 ENTRY POINT (SL166-6)	Edina	7/7/2000	Trichloroethene	0.80	ug/L
WELL 7 ENTRY POINT (SL166-6)	Edina	7/7/2000	Vinyl chłoride	0.70	ug/L
WELL 8	Edina	5/12/1995	Benzene	0.20	ug/L
WELL 8	Edina	5/12/1995	Ethylbenzene	0.80	ug/L
WELL B	Edina	5/12/1995	Toluene	0.20	ug/L
WELL NC: 14	St. Louis Park	3/30/1994	cis-1,2-Dichloroethene	20.00	ug/L
WELL NC: 14	St. Louis Park	3/30/1994	Ethylbenzene	1.20	ug/L
WELL NO 14	St. Louis Park	3/30/1994	trans-1,2-Dichloroethene	6.10	ug/L
WELL NO 14	St. Louis Park	3/30/1994	Trichloroethene	2.00	ug/L

Minnesota Department of Health Database Minnesota Department of Health Database

Table 3. Wells Sampled by STS Consultants City of Edina Well No. 7 Study - Phase II STS Project No. 99613-XB

WELLNAME	MN Unique	Sampling <b>M</b> ethodology	Aquifer	Depth Completed	Casing Depth	Depth to Water	Depth to Bottom of Well	Depth to Water
	No.	Discrete (D) or Low-Flow		ft CWI	ft CWI	ft CWI	ft STS	ft STS
					· · · · · ·			
P 8	00216117	L	Drift				13	10.11
P 9	00216118	L	Drift				14	10.39
P 58	00227944	L	Drift				12	5.11
P112	00216166	L	Drift	51	48		52	23.12
P304	00439765	L	Drift				36	9.28
W-2	00216031	D	Drift	36	33	14	32	12.48
W9	00216037	D	Drift	25	20	8	25	9.00
W10	00216038	D	Drift	29	25	8	28	7.90
W15	00216043	D	Drift	76	73	13	68	10.69
W16	00216044	D	Drift	64	61	11	63	10.63
W22	00200993	D	Drift	91	71	6	31	12.88
W423	00439813	D	Drift				47.3	36.25
MONITOR WELL W-18	00216046	D	Platteville	78	71	10	78	12.10
W 429	00439724	D	Platteville				81	10.18
W124	00165579	D	Platteville	86	74	30	87	22.06
W132	00165587	D	Platteville	93	86	75	92	33.15
W424	00439809	D	Platteville	110	100	36	112	35.67
P 62	00227948	D	Platteville				122	47.47
MONITOR WELL W-14	00114472	D	St. Peter	95	86	26	81	25.47
W21	00216049	D	St. Peter	92	92	25	61	25.81

Table 4. Water Level Measurements in the City of St. Louis Park Wells
City of Edina Well No. 7 Study - Phase II
STS Project No. 99613-XB

Part																	_												
Wilson   W	!					ŀ	2001 Fall		••						i i										omparisons				
Property		and the second s	er de la companya de	e para di salah	and the second second		and the state of t			V 100 10 10 10 10 10 10 10 10 10 10 10 10	7 63.	77			1.75				- A CANADAN AND AND AND AND AND AND AND AND A		/	12233		. s . s . s . s . s . s . s . s . s . s	3,	ing/outilin			and the second s
Part	WELL	WELLNAME		UTME	UTMN		DATE	то		DATE	то	1	DATE	то	I I	DATE	то	Flevation	DATE	то	1	DATE	то	1 8	DATE	то	1	Spring/Fall Water Level	Compared to Average Spring/Fall Water
Fig.				m	m	n n		ft	n		<u>n</u>	ft		ft	ft	<u> </u>	ft	ft		ft	ft		ft	ft		ft	ft		
Fig.				<u> </u>		ļ			<b>└</b> ─┤											L			I					<b>2</b>	
Fig.   Control   Fig.   Control	<del></del>	D 112		471540	4075500	000 0	4/19/2001	22.17	P90 62	0010001	21.50	992.21	6717002	21.62	002.10	0070000	20.52	001.30	4/10/2003	21.74	802.00	00.0000	20.55	202.25			070.77		
Fig.   Column   Col				<del></del>						9/21/2001	21.39	862.21							220		<del></del>								
THE COUNTY TIMES NAME OF THE STATE OF THE ST	-		<del></del>							-					+					<del></del>					ALCO CONTRACTOR OF THE PARTY OF				
Wile				111111	17.1227			<del></del>		9/21/2001	40.78	878.69								<del></del>				<del></del>				-	
The control will be control		CITY OF ST.LOUIS PK/ENSR	0000216038	471875	4975885	892.03	4/18/2001	7.30	884.73	9/21/2001	7.24	884.79	6/21/2002	6.55	885.48	9/27/2002	5.62	886.41	4/18/2003	4.10	887.93		6.73				884.83		-0.94
The   Control	-																		Sauce .						6/17/2005				
CFT OFF T LOSS PARK   POSS			<del></del>		<del></del>							-					<del></del>		464	<del></del>				<del></del>	100		+		
Part																				<del></del>	<del></del>			<del></del>			• — •		
According   Control   Co	-						4/18/2001	40.44	0/8./3				0/21/2002	37.90	881.27	912112002	30.73	002.42	4/16/2003	31.16	861.39	8/1/2003	30.97	882.20	1000		+ <b>:</b>		
Part	1423	U.S.G.S. WELL W-128	0000433014	4/1/54	4575505	725.70	~ .	<del></del>	<del>                                     </del>	3/21/2001	37.07	004.07		_	<del>  </del>	+		<del>                                     </del>	5.55	<del> </del>	<del>                                     </del>	<del></del>	<del>                                     </del>	<del>  </del>	0/13/2003	41.09	802.07		
WILD STATE S			<b>†</b>			1					l			· · · · · · · · · · · · · · · · · · ·			-	1				<del> </del>							
Wisher   W	Platteville W	ells					4.5.				L					Platteville													
WITH   MAINTENN WILL WILL   COMPANY   COMPAN	W1					<del></del>	***										-	<del></del>	787		<del>                                     </del>	8/1/2003	42.66		6/16/2005	50.07	872.71	879.18	
Vision   Montrion Wiles   Montrion   Montr				ļ			14/.		<del></del>						<del></del>		+						<del></del>	<del> </del>			881.40		-1.58
WITH   LANGESOFTE CO.   000016575   070007   070002   071007   0	-	MONTTOP WELL W. 19	+	470076	4076016	- R				9/21/2001	10.53	883.96				9/27/2002	9.87	884.62	***					<del></del>		_	000.00	<u> </u>	1.10
WILD   BLIEF NATION   COMPANY   CO	-			<del></del>	<del></del>	- <del></del>	74			9/21/2001	43 30	876.51				9272002	42.77	877 13	724				<del></del>	<del></del>			-	**	
WISTO   COLST-MAR   COLORISMS   APPROX   COLORISM							****		-										1000			6/1/2003	42.63	011.03			+	**	
WIST	<b>)</b>		<del></del>	·			35			1					<del>                                     </del>	772772				10.52	011.23		† · · · · ·		-			071.50	2:
W26 ST LOUISPARK AD 000049910 471229 479644 529.9 418200 10.0 34.9 581.5 19.0 471200 31.2 881.5 19.0 471200 31.2 881.5 19.0 471200 31.5 882.0 18.8 83.9 49.1 418200 479.	W130		0000165585	470407	4977169	894.83	4/18/2001	20.56	874.27	9/21/2001	19.03	875.80	6/21/2002	19.50	875.33	9/27/2002	18.02	876.81	4/18/2003	18.94	875.89	8/1/2003	1914	875.69				875.63	-1.90
WAS   C. S.G. S.W.15   C. O. 000045912   471024   4795421   4975427   497547   4914   4975422   4914   4975421   4914   4975422   4914   4914   4914   4915422   4914   4914   4914   4915422   4914   4914   4914   4915422   4914   4914   4914   4915422   4914   4914   4914   4915422   4914   4914   4914   4915422   4914   4914   4914   4915422   4914   491	W132	MONITOR WELL W-115	0000165587				in.s														L			i i	6/16/2005	34.10	870.85	873.98	-3.13
W428 U.S.G.S. Wi30 000049810 471352 4797457 9194 4797457 9194 57414000 4710 4710 4710 4710 4710 4710 47													7.11						1774		$\overline{}$		+	N					
W431   0	-																<del></del>								447				
W33   ST. LOUIS PARK AD   0000469371   371229   4971474   925.84   47182000   131.45   888.55   871200   131.45   888.55   871200   131.45   888.55   8712000   131.45   888.55   871200   131.45   888.55   8712000   131.45   888.55   8712000   131.45   888.55   8712000   131.45   888.55   8712																			C Table				+					**	
Ward	<del></del>	<u>_</u>			<del></del>			-									<del></del>	<del></del>											
St. Peter Wilt:  St. Peter Wilt:  W14		01. 20018171441712		7/1222	4770743														M 27				<del></del>						
S.F.   ST. LOUIS PARK 3   0000016440   471020																							1					0	
S.F.   ST. LOUIS PARK 3   0000016440   471020																													
Wild																													
W122   ST.LOUIS PARK 3   0000165578   471026   4777534   916.33   4712000   49.57   48.57   4777534   916.33   4712000   48.55   48.77   48.57   47.77   49.77		ST. LOUIS PARK 3		471026	4977534				<del>  </del>	-			6/21/2002	54.08	870.98	9/27/2002	51.60	873.46				<del></del>	ļ					872.22	-2.16
W129   ST. LOUIS PARK 3   0000165584   471026   4977349   916.33   4182001   48.95   867.38   921/2001   47.75   868.57   621/2002   48.68   867.65   97272002   46.96   869.37   4718/2003   47.67   868.66   817.2003   49.21   4718/2003   59.05   866.28   868.05   6715/2005   59.05   866.28   868.05   6715/2005   59.05   868.28   868.05   6715/2005   59.05   868.28   869.28   8			<del></del>	<del> </del>			4/18/2001	60.67	950.01	0010001	21.11	057.47	(010000	(2.04	054.54	0.000000	(0.22	959.26	4/18/2002	60.77	060.01	0/1/2003	(2.02	055.57				057.50	0.47
W133   P-113   0000165588   472150   4975502   921.06   4/18/2001   56.70   864.16   9/21/2001   56.71   864.35   6/21/2002   57.85   863.21   9/27/2002   56.25   864.81   4/18/2003   56.13   864.93   8/1/2003   59.05   862.01   6/15/2005   58.54   862.52   863.91   -1.39		ST LOUIS PARK 3		471026	4977534																$\overline{}$								
W408   P-116   0000432037   473072   4976114   923.53   4718200   51.71   871.82   921/2001   53.81   869.75   921/2001   53.18   869.75   9																							_						
W409 MONITOR WELL W-14 0000432036 470976 4976019 923.56 4/18/2001 53.81 869.75 9/21/2001 55.16 868.40 6/21/2002 54.20 869.36 9/27/2002 52.65 870.91 4/18/2003 52.98 870.58 871/2003 57.29 866.27 6/15/2005 56.15 867.41 869.21 -1.80 865.14 9/21/2001 31.05 865.20 6/21/2002 31.94 864.31 9/27/2002 29.96 866.29 4/18/2003 29.85 866.40 8/12/2003 32.81 863.44 6/17/2005 32.25 864.00 865.13 -1.13 867.14 9/21/2001 88.98 804.95 6/21/2002 98.15 795.78 4 4/18/2003 80.96 812.97 4/18/2003 80.96 812.97 4/18/2003 80.96 812.97 4/18/2003 53.49 814.72 8/12/2005 56.15 867.41 869.21 -1.80 865.13 -1.13 869.21 80.14 80.10 80.16 80.1	<del></del>															<b>-</b>			277										
Prairie Du Chien / Jordan Wells  W48	W409	MONITOR WELL W-14	0000432036											_	869.36		52.65	870.91	4/18/2003										
Prairie Du Chien / Jordan Wells  W48 METHODIST HOSPITAL 0000216067 471401 4975240 893.93 4/18/2001 82.99 810.94 9/21/2001 88.98 804.95 6/21/2002 98.15 795.78  W403 FLAME INDUSTRIES 0000439751 470671 4975759 868.21 4/18/2001 55.77 812.44 9/21/2001 60.14 808.07 6/21/2002 65.72 802.49 9/27/2002 60.17 808.04 4/18/2003 53.49 814.72 8/1/2003 72.13 796.08 6/17/2005 56.79 811.42 806.97 4.45  SLP 5 ST. LOUIS PARK 5 0000203196 469653 4976568 927.13 4/18/2001 116.10 811.03 9/21/2001 122.85 804.28 6/21/2002 188.00 795.49 9/27/2002 108.00 79	W411	ROBINSON RUBBER CO.	0000432035	471260	4976027	896.25	4/18/2001	31.11	865.14	9/21/2001	31.05	865.20	6/21/2002	31.94	864.31	9/27/2002	29.96	866.29	4/18/2003	29.85	866.40	8/1/2003	32.81	863.44	6/17/2005	32.25	864.00	865.13	-1.13
W48         METHODIST HOSPITAL         0000216067         471401         4975240         893.93         4/18/2001         82.99         810.94         9/21/2001         88.98         804.95         6/21/2002         98.15         795.78         4/18/2003         80.96         812.97         6/17/2005         86.32         807.61         806.16         1.45           W119         MEADOWBROOK GOLF COURSE         0000216009         471217         4974590         895.85         80.96         812.97         6/14/2005         80.97         97.12         798.73           W403         F1.AME INDUSTRIES         0000439751         470671         4975759         868.21         4/18/2001         55.77         812.44         9/21/2001         60.14         808.07         6/21/2002         65.72         802.49         9/27/2002         60.17         808.04         6/17/2005         56.79         811.42         806.97         4.45           SLP 5         ST. LOUIS PARK 5         0000203196         469653         4976568         927.13         4/18/2001         91.65         811.84         9/21/2001         162.83         800.30         70.12         70.00         70.12         70.00         80.29         80.00         70.12         70.00         80.32															-1													Average:	-1.15
W48         METHODIST HOSPITAL         0000216067         471401         4975240         893.93         4/18/2001         82.99         810.94         9/21/2001         88.98         804.95         6/21/2002         98.15         795.78         4/18/2003         80.96         812.97         6/17/2005         86.32         807.61         806.16         1.45           W119         MEADOWBROOK GOLF COURSE         0000216009         471217         4974590         895.85         80.96         812.97         6/14/2005         80.97         97.12         798.73           W403         F1.AME INDUSTRIES         0000439751         470671         4975759         868.21         4/18/2001         55.77         812.44         9/21/2001         60.14         808.07         6/21/2002         65.72         802.49         9/27/2002         60.17         808.04         6/17/2005         56.79         811.42         806.97         4.45           SLP 5         ST. LOUIS PARK 5         0000203196         469653         4976568         927.13         4/18/2001         91.65         811.84         9/21/2001         162.83         800.30         70.12         70.00         70.12         70.00         80.29         80.00         70.12         70.00         80.32			<u> </u>	<u> </u>	ļ				┝┷┦	<u> </u>		igsquare			<b>├</b>	1		ļ <b>.</b>					آــــــا						
W119 MEADOWBROOK GOLF COURSE 0000216009 471217 4974590 895.85	33740		0000000000	471.401	4007035	000.00	400000	00.00	L	001000	00.00	204.22	(8)	00.15	705.70				1115 200		L	Д——	<b> </b>		4		000		
W403 FI.AME INDUSTRIES 0000439751 470671 4975759 868.21 4/18/2001 55.77 812.44 9/21/2001 60.14 808.07 6/21/2002 65.72 802.49 9/27/2002 60.17 808.04 4/18/2003 53.49 814.72 8/1/2003 72.13 796.08 6/17/2005 56.79 811.42 806.97 4.45  SLP 5 ST. LOUIS PARK 5 0000203196 469653 4976568 927.13 4/18/2001 116.10 811.03 9/21/2001 122.85 804.28 6/21/2002 126.83 800.30 8 6/21/2002 126.83 800.30 8 6/21/2002 126.83 800.30 8 6/21/2003 152.66 750.81 6/17/2005 96.43 807.06 793.14 13.92  SLP 8 ST LOUIS PARK 8 0000203678 468215 4979510 940.07 4/18/2001 128.60 811.47 808.07 6/21/2002 108.00 795.49 9/27/2002 108.00 795.49							4/18/2001	82.99	810.94	9/21/2001	88.98	804,95	6/21/2002	98.15	195.18	-	<u> </u>	<u> </u>	4/18/2003	80.96	812.97	+	┼───┥					806.16	1.45
SLP 5 ST. LOUIS PARK 5 0000203196 469653 4976568 927.13 4/18/2001 116.10 811.03 9/21/2001 122.85 804.28 6/21/2002 126.83 800.30							4/18/2001	55 77	812 44	9/21/2001	60.14	808 07	601000	65.72	802.49	0/27/2002	60.17	808.04	4/18/2003	53.40	814 72	8/1/2003	72.13	706.08				806.07	4.45
SLP 7 ST. LOUIS PARK 7 0000206436 470699 4978378 903.49 4418/2001 91.65 811.84 9/21/2001 98.20 805.29 6/21/2002 101.20 802.29 8 8/1/2003 152.66 750.81 6/17/2005 96.43 807.06 793.14 13.92 81.84 8/1/2003 152.66 750.81 6/17/2005 157.75 782.32 777.94 4.38 81.10 SLP 10 ST. LOUIS PARK 10 0000206442 470979 4977506 927.81 5 4/18/2001 119.30 808.51 9/21/2001 126.95 800.86 6/21/2002 142.26 785.55 9/27/2002 132.60 795.21 6 8/1/2003 190.70 737.11 6 6/17/2005 169.30 758.51 785.45 -26.94																			4/10/2003	33.49	014./2	0/1/2003	12.13	130.00				<del></del>	
SLP 8 ST LOUIS PARK 8 0000203678 468215 4979510 940.07 4/18/2001 128.60 811.47 6/17/2005 157.75 782.32 777.94 4.38 SLP 10 ST. LOUIS PARK 10 0000206442 470979 4977506 927.81 54 4/18/2001 119.30 808.51 9/21/2002 142.26 785.55 9/27/2002 132.60 795.21 6/17/2003 190.70 737.11 66/17/2005 169.30 758.51 785.45 -26.94			<del></del>																		<del></del> +	8/1/2003	152.68	750.81		:			
SLP 10 ST. LOUIS PARK 10 0000206442 470979 4977506 927.81 4/18/2001 119.30 808.51 9/21/2001 126.95 800.86 6/21/2002 142.26 785.55 9/27/2002 132.60 795.21 8 8/1/2003 190.70 737.11 6/17/2005 169.30 758.51 785.45 -26.94																			10	<u> </u>									
Eg Average: -0.93											126.95	800.86				9/27/2002	132.60	795.21	et.										
															L			2									3	Average:	-0.93
			<u> </u>	<u> </u>					LI						LT														

# Table 5A Groundwater Analytical Results - Drift Wells Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Water Standard	Well Name:	P 8	P 9	P 58	P109	P112	P112	P112	P304	P305	P307	P307D	P308	P309	P310	P312	W W WOLD &	W-2
			CWI Name:																JOHN ANDERSON	
			MN Unique Well No.:	00216117	00216118	00227944	00216194	00216166	00216166	00216166	00439765	00439765	00462926	00462926	00462927	00462928	00462929	00462932	00206547	00216031
			Aguifer:	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift-PDCJ	Drift
			STS Sample ID:	P8	P9	P 58		P112	P112	P113	P304	P305					THE RESIDENCE		PRI. #4	W-2
			MDH Sample No:	200514577	200514581	200514580		200508514	200514578	200514579	200514574	200514575							200430253	20051404
			Sample Date:	6/7/2005	6/8/2005	6/7/2005	4/26/2005	4/25/2005	6/7/2005	6/7/2005	6/6/2005	6/6/2005	4/25/2005	4/25/2005	4/25/2005	4/25/2005	4/25/2005	4/26/2005	10/27/04	6/3/2005
Detected Contaminants			Notes:	Low Flow Sample	Low Flow Sample	Low Flow Sample	ENSR Split Sample	ENSR split sample	Low Flow Sample	Low Flow Sample, Duplicate	Low Flow Sample	Low Flow Sample, Duplicate	ENSR Split Sample	Spigot Water Sample	Discrete Sample					
0		40 1101				0.0						2.2		0.0		- 10		0.0	-00	-0.0
Benzene	ug/L	10 HRL		0.5	<0.2	<0.2	13.0	<0.2	0.3	0.4	<0.2	<0.2	<0.2	<0.2	13.0	1.3	0.6	<0.2	<0.2	<0.2
n-Butylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromoethane Chloroethane	ug/L	80 HRL 300 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 <0.5	<0.5 <0.5
Chloroform	ug/L ug/L	300 HRL 60 HRL		<0.5	<0.5 <0.1	<0.5 <0.1	<0.5 0.1	<0.5	<0.5 <0.1	<0.5	<0.5	<0.5 <0.1	<0.5 <0.1	<0.5 <0.1	<0.5 <0.1	<0.5 <0.1	<0.5 <0.1	<0.5 0.2	<0.5	<0.5
I,1-Dichloroethane	ug/L ug/L	70 HRL		<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	0.2	<0.2	<0.1	<0.1
1,2-Dichloroethane	ug/L	4 HRL		<0.2	<0.2	<0.2	0.4	<0.2	0.3	0.3	<0.2	<0.2	<0.2	<0.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	ug/L	6 HRL		<0.5	<0.5	<0.5	14.0	<0.5	0.6	0.9	<0.5	<0.5	<0.2	<0.2	12	<0.2	<0.2	<0.2	<0.5	<0.5
cis-1,2-Dichloroethene	ug/L	70 HRL		98.33.5	<0.2	<0.2	3800.0 %	0.7	2.6	3.5	<0.2	<0.2	0.6	<0.2	2100.0	<0.2	0.5	1.9	<0.2	0.2
rans-1,2-Dichloroethene	ug/L	100 HRL		23	<0.1	<0.1	61	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	55	1.2	0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane	ug/L	1000 HRL		<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<1.0
Dichlorofluoromethane	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	700 HRL		<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5	<0.5	<0.5	<0.5
sopropylbenzene	ug/L	300 HRL*	Electronic Control of the Control	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5
-Isopropyltoluene	ug/L		DE	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride (Dichloron		50 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	ug/L	300 HRL		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
-Propylbenzene	ug/L		Triber / Gentle d	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	ug/L	100 MCL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
etrachloroethene	ug/L	7 HRL		<0.2	<0.2	<0.2	1000.0	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	560.0	<0.2	<0.2	3.9	<0.2	<0.2
	ug/L	100 HBV		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
oluene	ug/L	1000 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	ug/L	600 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
richloroethene (TCE)	ug/L	30 HRL		23	<0.1	<0.1	690.0	0.2	0.3	0.4	0.1	<0.1	0.3	<0.1	420.0	<0.1	<0.1	2.5	<0.1	<0.1
,2,4-Trimethylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
,3,5-Trimethylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
inyl Chloride	ug/L	0.2 HRL		6.2	<0.2	<0.2	44.0	<0.2	3.5	4.7	<0.2	<0.2	<0.2	<0.2	130.0	1.5	2.1	<0.2	<0.2	<0.2
Xylene	ug/L			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
&m-Xylene	ug/L	-		<0.3	<0.3	<0.3	0.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.8	<0.3	<0.3	<0.3	<0.3	<0.3
(vlene (total)	ug/L	10000 HRL	E 67 - 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Bold face - detect 0.4

- detected concentration exceeds drinking

\* - due to new research, the MDH no longer
 recommends the HRL value

HBV - Health Based Values derived by Minnesota Department of Health
HRL - Health Risk Level derived and promulgated
 in rule by Minnesota Department of Health
MCL - Maximum Contaminant Level (USEPA)

## Table 5A Groundwater Analytical Results - Drift Wells Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Water Standard	Well Name:	W9	W10	W15	W16	W17	W22	W117	W136	W136 - DUP	W420	W420	W422	W423	W425	W427	W439 - U.S.G.S. NO. 135	W439
			CWI Name:										W420 - U.S.G.S. WELL NO. 100						W439 - U.S.G.S. NO. 135	
			MN Unique Well No.:	00216037	00216038	,00216043	00216044	00216044	00200993	00160031	00165591	00165591	00434405	00434045	00434043	00439813	00439813	00439811	00538134	00538134
			Aguifer:	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift	Drift
			STS Sample ID:	W9	W10	W15	W16	W17	W22	Dint	Dint	Dint	SLP 420	Dillit	Dine	W423	W425		SLP 439	/* X 20 X 2
			MDH Sample No:	200514042	200514045	200514030	200514043	200514047	200514041				200432995			200514029	200514036	e herene	200432994	
			Sample Date:	6/3/2005	6/3/2005	6/2/2005	6/3/2005	6/3/2005	6/3/2005	4/26/2005	4/26/2005	4/26/2005	12/9/2004	5/2/2005	4/26/2005	6/2/2005	6/2/2005	4/26/2005	12/9/2004	4/25/2005
Detected Contaminants			Notes:	Discrete Sample	Discrete Sample	Discrete Sample	Discrete Sample	Discrete Sample, Duplicate	Discrete Sample	ENSR Split Sample	ENSR Split Sample	ENSR Split Sample	Spigot Water Sample	ENSR Split Sample	ENSR Split Sample	Discrete Sample	Discrete Sample, Duplicate	ENSR Split Sample	Spigot Water Sample	ENSR Spli Sample
Pennan		10 1101			0.0															-0.2
Benzene	ug/L	10 HRL		149:0.7	<0.2	<0.2	<0.2	<0.2	0.8	8.2	16.0	18.0	84	100.0	55.0	<0.2	<0.2	0.4	71	<0.2
n-Butylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromoethane	ug/L	80 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	300 HRL		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.3	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	ug/L	60 HRL		0.1	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
1,1-Dichloroethane 1,2-Dichloroethane	ug/L	70 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	ug/L	4 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	<0.2	
1,1-Dichloroethene	ug/L	6 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	2.3	<0.2	<0.5	0.4	<0.2	<0.5	<0.5	0.9	<0.5	<0.2
cis-1,2-Dichloroethene	ug/L	70 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	330.0	630.0	590.0	21	28	4.7	<0.2	<0.2	4.1	2.3	0.6
trans-1,2-Dichloroethene	ug/L	100 HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	13	74	76	18	23	1.1	<0.1	<0.1	<0.1	1.0	0.3
Dichlorodifluoromethane Dichlorofluoromethane	ug/L	1000 HRL		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<1.0	<0.1	<0.1	<1.0	<1.0	<0.1	<1.0	3
Ethylbenzene	ug/L	700 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 <0.5	<0.5	<0.5
sopropylbenzene	ug/L ug/L	700 HRL 300 HRL*		16 2.9	<0.5	<0.5	<0.5	<0.5	0.6	1.6	24	24	98	51	110	<0.5	<0.5	<0.5	110	<0.5
o-Isopropyltoluene	ug/L	300 HAL		<0.5	<0.5 <0.5	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<b>2.6</b> <0.5	2.8 <0.5	9.9	9.6 <0.5	1.2	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5	<0.5
Methylene chloride (Dichloro		50 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vaphthalene	ug/L	300 HRL		660	<1.0	<1.0	<1.0	<0.5	2.7	<0.5	7.5	3.5	2400	3100.0	1100.0	<1.0	<1.0	14	1000	<1.0
n-Propylbenzene	ug/L	300 HAL		0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	0.9	3.8	2.8	8.9	<0.5	<0.5	<0.5	9.8	<0.5
Styrene	ug/L	100 MCL		0.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	<0.5	3.6	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	ug/L	7 HRL		<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	11.0	2800.0	2700.0	<0.2	<0.2	1.6	<0.2	<0.2	5	<0.2	<0.2
Tetrahydrofuran	ug/L	100 HBV		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Toluene	ug/L	1000 HRL		1.2	<0.5	<0.5	1.1	1.1	4.3	<0.5	0.8	0.9	4.4	3.8	5.4	2.6	3.6	<0.5	8.1	<0.5
1,1,1-Trichloroethane	ug/L	600 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene (TCE)	ug/L	30 HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	5.3	1900.0	1800.0	2.6	1.7	0.9	<0.1	<0.1	0.6	0.1	0.2
,2,4-Trimethylbenzene	ug/L			14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	35	46	84	<0.5	<0.5	<0.5	43	<0.5
,3,5-Trimethylbenzene	ug/L	-		2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	0.6	15	16	13	<0.5	<0.5	<0.5	8.5	<0.5
/inyl Chloride	ug/L	0.2 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	160.0	62.0	63.0	8.7	12.0	1.9	<0.2	<0.2	6.1	1.9	1.2
-Xylene	ug/L			17	<0.2	<0.2	<0.2	<0.2	0.4	0.5	1.1	1.2	51	60	88	<0.2	<0.2		74	<0.2
	ug/L	-		11	<0.3	<0.3	<0.3	<0.3	0.3	0.8	1.4	1.4	98	100	97	<0.3	<0.3	0.3	120	<0.3
	ug/L	10000 HRL		28	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	149	<0.5	<0.5	<0.5	<0.5	<0.5	194	<0.5

Notes:

- detected concentration exceeds drinking

\* - due to new research, the MDH no longer
 recommends the HRL value

HBV - Health Based Values derived by Minnesota Department of Health
HRL - Health Risk Level derived and promulgated
 in rule by Minnesota Department of Health
MCL - Maximum Contaminant Level (USEPA)

Table 5B Groundwater Analytical Results - Platteville Formation Wells Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Water Standard	Well Name:	W18	W20	W27	P 62	W101	W124	W131	W132	W143	W421	W421	W424	W426
			CWI Name:										W421 - U.S.G.S. WELL W-121			
			MN Unique Well No.:	00216046	00216048	00216052	00227948	00149711	00165579	00165586	00165587	00216051	00434044	00434044	00439809	00439812
			Aguifer:	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville
			STS Sample ID:	W18			P 62	Element Till V	W124		W132		SLP 421		W424	
			MDH Sample No:	200514048			200514034		200514035		200514033		200432996		200514028	
			Sample Date:	6/3/2005	5/2/2005	5/2/2005	6/2/2005	5/2/2005	6/2/2005	5/3/2005	6/2/2005	5/3/2005	12/9/2004	5/3/2005	6/2/2005	5/2/2005
Detected Contaminants			Notes:	Discrete Sample	ENSR Split Sample	ENSR Split Sample	Discrete Sample	ENSR Split Sample	Discrete Sample	ENSR Split Sample	Discrete Sample	ENSR Split Sample	Spigot Water Sample	ENSR Split Sample	Discrete Sample	ENSR Split Sample
Panzone	ug/l	10 LIDI		6.1	0.0	20.0	0.0		0.0			4.4	26	20.0	-0.0	0.8
Benzene n-Butylbenzene	ug/L ug/L	10 HRL	4	<b>6.1</b> <0.5	<b>0.9</b> <0.5	39.0 <0.5	0.3 <0.5	<0.5	<0.2 <0.5	< <b>0.2</b> <0.5	1.4 <0.5	1.1 <0.5	28 0.5	32.0 <0.5	<0.2 <0.5	<0.5
Chlorodibromoethane	ug/L	80 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	300 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	ug/L	60 HRL		<0.1	0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
1,1-Dichloroethane	ug/L	70 HRL		<0.2	<0.2	<0.2	<0.2	0.3	0.6	<0.2	0.3	<0.2	0.3	3.9	<0.2	<0.2
1,2-Dichloroethane	ug/L	4 HRL	The second second	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	ug/L	6 HRL		<0.5	<0.2	<0.2	<0.5	<0.2	<0.5	<0.2	<0.5	<0.2	2.3	<0.2	<0.5	<0.2
cis-1,2-Dichloroethene	ug/L	70 HRL		7.2	1	<0.2	0.8	0.8	<0.2	0.3	<0.2	14	410	810.0	<0.2	<0.2
trans-1,2-Dichloroethene	ug/L	100 HRL	1	11	<0.1	<0.1	0.2	1.8	<0.1	<0.1	<0.1	4.7	260	330.0	<0.1	0.1
Dichlorodifluoromethane	ug/L	1000 HRL		<1.0	<0.1	<0.1	<1.0	<0.1	<1.0	<0.1	<1.0	<0.1	<1.0	<0.1	<1.0	<0.1
Dichlorofluoromethane	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	700 HRL		<0.5	<0.5	15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	31	31	<0.5	13
Isopropylbenzene	ug/L	300 HRL*		<0.5	<0.5	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	4.8	5	<0.5	4.3
p-Isopropyltoluene	ug/L	LIDI		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2
Methylene chloride (Dichloro		50 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 9.6
Naphthalene n-Propylbenzene	ug/L ug/L	300 HRL		<1.0 <0.5	<b>2.5</b> <0.5	22	<1.0	29	<1.0	6.2	<1.0	6.3	360	230 1.6	<1.0	1.6
Styrene	ug/L	100 MCL		<0.5	<0.5	<b>0.5</b> <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<b>2.1</b> <0.5	<0.5	<0.5 <0.5	<0.5
Tetrachloroethene	ug/L	7 HRL	8	<0.2	5.1	<0.5	<0.5	<0.5	<0.5	12	<0.5	22.0	42.0	27.0	<0.2	<0.2
Tetrahydrofuran	ug/L	100 HBV		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Toluene	ug/L	1000 HRL	2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.5	2	32	0.6
1,1,1-Trichloroethane	ug/L	600 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene (TCE)	ug/L	30 HRL		0.6	2.9	<0.1	<0.1	<0.1	<0.1	2.7	<0.1	93.0	760.0	259.0	<0.1	<0.1
1,2,4-Trimethylbenzene	ug/L			<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	5.9	7.8	<0.5	13
1,3,5-Trimethylbenzene	ug/L	-	And the second	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.4	3.2	<0.5	8.5
Vinyl Chloride	ug/L	0.2 HRL		3.8	0.4	<0.2	0.2	0.6	<0.2	<0.2	0.7	2.4	100.0	150.0	<0.2	<0.2
o-Xylene	ug/L			<0.2	<0.2	3	<0.2	0.7	<0.2	<0.2	<0.2	<0.2	16	20	<0.2	6.5
o&m-Xylene	ug/L	• 1		<0.3	<0.3	1.1	<0.3	0.5	<0.3	<0.3	<0.3	<0.3	14	13	<0.3	3.5
Xylene (total)	ug/L	10000 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	30	<0.5	<0.5	<0.5

Notes:

Bold face - detect

- detected concentration exceeds drinking water criteria

HBV - Health Based Values derived by Minnesota Department of Health
HRL - Health Risk Level derived and promulgated
in rule by Minnesota Department of Health
MCL - Maximum Contaminant Level (USEPA)

<sup>\* -</sup> due to new research, the MDH no longer recommends the HRL value

## Table 5B Groundwater Analytical Results - Platteville Formation Wells Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Stand		Well Name:	W426D	W428	W429	W429	W429	W431	W433	W433FB	W434	W434	W437	W438
				CWI Name:									W434- ST. LOUIS PARK B-D			
				MN Unique Well No.:	00439812	00439810	00439724	00439724	00439724	00462935	00462933	00462933	00463012	00463012	00498917	00498919
				Aguifer:	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville	Platteville
				STS Sample ID:			W429	W429	W429				SLP 434			
				MDH Sample No:			200514031	200514031	200514031				200432997			
				Sample Date:	5/2/2005	5/3/2005	6/2/2005	6/2/2005	6/2/2005	5/3/2005	5/2/2005	5/2/2005	12/9/2004	5/3/2005	5/2/2005	5/3/2005
Detected Contaminants				Notes:	ENSR Split Sample	ENSR Split Sample	Discrete Sample	Discrete Sample, MS Sample	Discrete Sample, MSD Sample	ENSR Split Sample	ENSR Split Sample	ENSR Split Sample	Spigot Water Sample	ENSR Split Sample	ENSR Split Sample	ENSR Split Sample
										5.A. 3						
Benzene	ug/L	10	HRL	1	0.8	0.2	<0.2	<0.2	<0.2	4.6	31.0	<0.2	23	24.0	2.4	15.0
n-Butylbenzene	ug/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromoethane	ug/L	80	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	300	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	ug/L	60	HRL		0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<b>0.1</b> <0.2	<0.1
,1-Dichloroethane	ug/L ug/L	70	HRL		<0.2	<0.2	<0.2	<0.2	<0.2 <0.2	<0.2	<0.2 <0.2	<0.2	<0.2	<0.2 0.2	<0.2	<0.2
I,1-Dichloroethene	ug/L	6	HRL		<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	<0.2	<0.2	6.5	11.0	<0.2	3.7
cis-1,2-Dichloroethene	ug/L	70	HRL		0.2	<0.2	<0.2	<0.2	<0.5	89.0	1	<0.2	290	1100.0	86	190.0
rans-1,2-Dichloroethene	ug/L	100	HRL		0.1	<0.1	<0.1	<0.1	<0.1	41	3	<0.1	43	63	2.5	18
Dichlorodifluoromethane	ug/L	1000	HRL		<0.1	<0.1	<1.0	<1.0	<1.0	5.7	<0.1	<0.1	<1.0	<0.1	<0.1	<0.1
Dichlorofluoromethane	ug/L		11111		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	700	HRL		12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.5	<0.5	13	<0.5
sopropylbenzene	ug/L	300	HRL*	Ma Rect S	4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	1.2	8.3	<0.5
-Isopropyltoluene	ug/L				1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5
Methylene chloride (Dichloron	ug/L	50	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
laphthalene	ug/L	300	HRL		8.9	<1.0	<1.0	<1.0	<1.0	<1.0	3.4	1.3	8.9	<1.0	4100.0	1.6
-Propylbenzene	ug/L				1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.5	<0.5
tyrene	ug/L	100	MCL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
etrachloroethene	ug/L	7	HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1200.0	760.0	13000.0	3.6
etrahydrofuran	ug/L	100	HBV		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
oluene 1,1-Trichloroethane	ug/L	1000	HRL		0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 <0.2	<0.5	<0.5 <0.2	<0.2	<0.2	<0.5 <0.2
richloroethene (TCE)	ug/L	600 30	HRL		<0.2	<0.2	<0.2	<0.2	<0.2 <0.1	<0.2 7.4	0.4	<0.2	900.0	680.0	2600.0	200.0
,2,4-Trimethylbenzene	ug/L		HAL		<0.1	<0.1	<0.1	<0.1	<0.1			<0.1	<0.5	<0.5	<0.5	<0.5
,3,5-Trimethylbenzene	ug/L ug/L				12 8.3	<0.5 <0.5	<0.5	<0.5 <0.5	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5	19	<0.5
inyl Chloride	ug/L ug/L	0.2	HRL		<0.2	<0.5	<0.2	<0.2	<0.2	9.1	0.8	<0.2	86.0	110.0	8.6	36.0
-Xylene	ug/L		TIME		6.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	7.4	<0.2
&m-Xylene	ug/L				3.4	<0.2	<0.3	<0.2	<0.2	<0.2	<0.2	<0.2	0.6	0.8	14	<0.2
(ylene (total)	ug/L	10000	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5

Notes:

Bold face - detect

0.4 - detected concentration exceeds drinking water criteria

\* - due to new research, the MDH no longer recommends the HRL value

HBV - Health Based Values derived by Minnesota Department of Health HRL - Health Risk Level derived and promulgated in rule by Minnesota Department of Health MCL - Maximum Contaminant Level (USEPA)

Table 5C Groundwater Analytical Results - St. Peter Sandstone Wells Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Stand		Well Name:	SLP3	SLP3	PERRY A & CINDY L WITKIN	W14	W21	W122	W122FB	W133	W409	W-410 (USGS W-24)	W411	W412	W412D
				CWI Name:	ST. LOUIS PARK 3	ST. LOUIS PARK 3	J. J. LIEBENBERG										
				MN Unique Well No.:	00206440	00206440	00203620	00114472	00216049	00165578	00165578	00165588	00432036	00434042	00432035	00432034	00432034
				Aquifer:	PlattSt. Peter	St. Peter	St. Peter-PDCJ	St. Peter	St. Peter	St. Peter	St. Peter	St. Peter	St. Peter	St. Peter	St. Peter	St. Peter	St. Peter
			33	STS Sample ID:			EDINA PRI #1	W14	W21			Market Call					
				MDH Sample No:	200423868		200429907	200514032	200514046					200424655			
				Sample Date:	8/16/2004	5/9/2005	10/22/04	6/2/2005	6/3/2005	5/9/2005	5/9/2005	5/9/2005	5/3/2005	8/23/2004	5/9/2005	5/9/2005	5/9/2005
Detected Contaminants			9	Notes:	City of St. Louis Park Data	ENSR Split Sample	Spigot Water Sample	Discrete Sample	Discrete Sample	ENSR Split Sample	ENSR Split Sample	ENSR Split Sample	ENSR Split Sample	City of St. Louis Park Data	ENSR Split Sample	ENSR Split Sample	ENSR Split Sample
													100				
Benzene	ug/L	10	HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	19.0	0.9	0.2	1.1	1.1
n-Butylbenzene	ug/L		1101		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromoethane	ug/L	80	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane Chloroform	ug/L	300	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 <0.1	<0.5
1.1-Dichloroethane	ug/L ug/L	70 70	HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	ug/L ug/L	4	HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	ug/L	6	HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2
cis-1.2-Dichloroethene	ug/L	70	HRL		<0.5	<0.2	<0.5	<0.5	<0.5	<0.2	<0.2	5	2.4	0.6	0.5	<0.2	<0.2
trans-1.2-Dichloroethene	ug/L	100	HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.5	9.1	0.4	<0.1	<0.1	<0.1
Dichlorodifluoromethane	ug/L	1000	HRL		<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.5	<1.0	<1.0	<1.0
Dichlorofluoromethane	ug/L		11111		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	700	HRL		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	21	0.4	<0.5	<0.5	<0.5
sopropylbenzene	ug/L	300	HRL*		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<0.5
o-Isopropyltoluene	ug/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride (Dichloro		50	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	ug/L	300	HRL		<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0
-Propylbenzene	ug/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	ug/L	100	MCL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
etrachloroethene	ug/L	7	HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.7	<0.2	0.4	<0.2	<0.2	<0.2
Tetrahydrofuran	ug/L	100	HBV		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Toluene	ug/L	1000	HRL		<0.2	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	0.7	<0.2	<0.5	<0.5	<0.5
,1,1-Trichloroethane	ug/L	600	HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	ug/L	30	HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.8	0.4	3.2	<0.1	<0.1	<0.1
	ug/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.4	<0.5	<0.5	<0.5	<0.5
,3,5-Trimethylbenzene	ug/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5
	ug/L	0.2	HRL		<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	2.8	0.5	<0.5	<0.2	<0.2	<0.2
	ug/L				<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	7.7	<0.2	<0.2	<0.2	<0.2
&m-Xylene	ug/L				<0.2	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1.4	<0.2	<0.3	<0.3	<0.3
(ylene (total)	ug/L	10000	HRL		<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.4	<0.5	<0.5	<0.5

Bold face - detect

o.4 - detected concentration exceeds drinking

water criteria

water criteria

\* - due to new research, the MDH no longer
recommends the HRL value

HBV - Health Based Values derived by Minnesota Department of Health

HRL - Health Risk Level derived and promulgated
in rule by Minnesota Department of Health

MCL - Maximum Contaminant Level (USEPA)

Table 5D Groundwater Analytical Results - Prairie du Chien / Jordan Aquifer Wells Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Water Standard	Well Name:	W W WOLD & L M WOLD	PERRY A & CINDY L WITKIN	Mike Kelly 952-922-9012	Mike Kelly 952-922-9012	PETER M & ELLEN B KAISER	JASON F BROWN	Peter M Schimit/Kathi J. Wright	Peter M Schimit/Kathi J. Wright	ED2	ED2	ED3	ED4	ED6	ED7
			CWI Name:	JOHN ANDERSON	J. J. LIEBENBERG	EDINA COUNTRY CLUB NO.1	EDINA COUNTRY CLUB NO.1	FRED SMITH	JOE ELIASON	LEW BONN	LEW BONN	EDINA 2	EDINA 2	EDINA 3	EDINA 4	EDINA 6	EDINA 7
			MN Unique Well No.:	00206547	00203620	00232315	00232315	00206502	00206599	00223769	00223769	00208399	00208399	00240630	00200561	00200564	00206474
			Aguifer:	Drift-PDCJ	St. Peter-PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ
			STS Sample ID:	PRI. #4	EDINA PRI #1	EDINA CC #1	EDINA CC #1 -	Edina Pri #5	EDINA PRI #2	EDINA PR#3	EDINA PR#3 - Dup	EDINA #2	EDINA #2 - Dup	EDINA #3	EDINA #4	EDINA #6	
			MDH Sample No:	200430253	200429907	200430525	200430526	200431474	200429907	200430251	200430252	200429900	200429901	200430255	200430254	200429904	
			Sample Date:	10/27/04	10/22/04	11/01/04	11/01/04	11/10/04	10/22/04	10/27/04	10/27/04	10/22/04	10/22/04	10/27/04	10/27/04	10/22/04	01/26/04
Detected Contaminants			Notes:	Spigot Water Sample	Spigot Water Sample	Spigot Water Sample	Spigot Water Sample, Duplicate	Spigot Water Sample	Spigot Water Sample	Spigot Water Sample	Spigot Water Sample, Duplicate	Spigot Water Sample	Spigot Water Sample, Duplicate	Spigot Water Sample	Spigot Water Sample	Spigot Water Sample	Spigot Water Sample
Benzene	ug/L	10 HRL		<0.2	-0.0	0.4	0.4	0.0	-0.0	-0.0	-0.0	-0.0	<0.2	<0.2	<0.2	<0.2	<0.2
n-Butylbenzene	ug/L ug/L	10 HRL		<0.2	<0.2 <0.5	<0.5	<0.5	<0.2 <0.5	<0.2 <0.5	<0.2 <0.5	<0.2 <0.5	<0.2 <0.5	<0.2	<0.2 <0.5	<0.2	<0.5	<0.5
Chlorodibromoethane	ug/L	80 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	300 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	ug/L	60 HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethane	ug/L	70 HRL		<0.2	<0.2	0.4	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	ug/L	4 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	ug/L	6 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	ug/L	70 HRL		<0.2	<0.2	16	16	<0.2	<0.2	<0.2	<0.2	1.8	2.0	<0.2	<0.2	<0.2	<0.2
trans-1,2-Dichloroethene	ug/L	100 HRL		<0.1	<0.1	0.7	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane	ug/L	1000 HRL		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorofluoromethane	ug/L			<0.5	<0.5	1.0	1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	700 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	ug/L	300 HRL*		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride (Dichloro	n ug/L	50 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	ug/L	300 HRL		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	ug/L	-		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	ug/L	100 MCL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	ug/L	7 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrahydrofuran	ug/L	100 HBV		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Toluene	ug/L	1000 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	600 HRL	T	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene (TCE)	ug/L	30 HRL		<0.1	<0.1	1.2	1.1	<0.1	<0.1	<0.1	<0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1
1,2,4-Trimethylbenzene	ug/L	-		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
/inyl Chloride	ug/L	0.2 HRL		<0.2	<0.2	2.0	2.1	<0.2	<0.2	<0.2	<0.2	0.4	0.4	<0.2	<0.2	<0.2	3.9
o-Xylene	ug/L			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o&m-Xylene	ug/L	-		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
(ylene (total)	ug/L	10000 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Bold face - detect

0.4 - detected concentration exceeds drinking water criteria

\* - due to new research, the MDH no longer recommends the HRL value

HBV - Health Based Values derived by Minnesota Department of Health HRL - Health Risk Level derived and promulgated in rule by Minnesota Department of Health MCL - Maximum Contaminant Level (USEPA)

## Table 5D Groundwater Analytical Results - Prairie du Chien / Jordan Aquifer Wells Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Water Standard	Well Name:	ED7	ED7	ED7	ED7	ED7	ED13	ED15	ED17	MILASTAR CORPORAT.	MILASTAR CORPORAT.	SLP4	SLP6	SLP6	SLP6
			CWI Name:	EDINA 7	EDINA 7	EDINA 7	EDINA 7	EDINA 7	EDINA 13	EDINA 15	EDINA 17	FLAME INDUSTRIES	FLAME INDUSTRIES	ST. LOUIS PARK 4	ST. LOUIS PARK 6	ST. LOUIS PARK 6	ST. LOUIS PARK 6
			MN Unique Well No.:	00206474	00206474	00206474	00206474	00206474	00203613	00207674	00200914	00206454	00206454	00200542	00206457	00206457	00206457
			Aquifer:	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ
			STS Sample ID:	ED7#1 360'	ED7#2 400'	ED7#6 520'	ED7#3 450'	ED7#4 E00!	EDINA #13	EDINA #15	EDINA #17	FI 1	FI2			SLP #6	
			313 Sample ID.	ED7#1 300	ED7#2 400	ED7#6 520	ED7#3 450	ED7#4 500'		EDINA #15	EDINA #17	FII	FIZ	Y SERVE O			
			MDH Sample No:	200501036	200501037	200501041	200501038	200501039	200429903	200429907	200430256	200432021	200432022	200423866	200423867	200431473	
	1 1		Sample Date:	01/20/05	01/20/05	01/20/05	01/20/05	01/20/05	10/22/04	10/22/04	10/27/04	11/19/04	11/19/04	8/16/2004	8/16/2004	11/10/04	5/10/2005
Detected Contaminants			Notes:	Discrete Sample	Discrete Sample	Discrete Sample, Duplicate	Discrete Sample	Discrete Sample	Spigot Water Sample	City of St. Louis Park Data	City of St. Louis Park Data	Spigot Water Sample	ENSR Split Sample				
Benzene	ug/L	10 HRL		<0.2	0.8	0.8	0.8	0.8	<0.2	<0.2	<0.2	0.9	0.9	<0.2	0.8	0.8	0.9
n-Butylbenzene	ug/L	-		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromoethane	ug/L	80 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	300 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	ug/L	60 HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethane	ug/L	70 HRL		<0.2	0.6	0.6	0.6	0.6	<0.2	1.3	<0.2	0.5	0.5	<0.2	1.1	1.2	1.1
1,2-Dichloroethane	ug/L	4 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	ug/L	6 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.2
cis-1,2-Dichloroethene	ug/L	70 HRL		<0.2	39	38	37	37	0.8	7.1	<0.2	47	46	<0.2	22	24	28
trans-1,2-Dichloroethene	ug/L	100 HRL		<0.1	3.7	3.3	3.2	3.4	<0.1	0.4	<0.1	2.4	2.4	<0.1	1.6	1.4	1.4
Dichlorodifluoromethane  Dichlorofluoromethane	ug/L	1000 HRL	2 2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	1.2	0.6	2.6	1.3 2.8	1.3 2.5
Ethylbenzene	ug/L ug/L	700 HRL		<0.5 <0.5	1.7 <0.5	1.6	1.7	1.7	<0.5	<0.5	<0.5	2.4	2.4	<0.2	<0.2	<0.5	<0.5
Isopropylbenzene	ug/L ug/L	300 HRL*		<0.5	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.2	<0.2	<0.5	<0.5
p-lsopropyltoluene	ug/L	300 HAL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5 <0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride (Dichloror		50 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene	ug/L	300 HRL		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0
n-Propylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	ug/L	100 MCL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	ug/L	7 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrahydrofuran	ug/L	100 HBV		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Toluene	ug/L	1000 HRL	The state of the s	3.3	0.8	0.9	1.4	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.5	<0.5
1,1,1-Trichloroethane	ug/L	600 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene (TCE)	ug/L	30 HRL		<0.1	2.3	2.2	2.3	2.2	0.1	1.9	<0.1	2.9	2.7	<0.1	6.6	7.2	7
1,2,4-Trimethylbenzene	ug/L	-	Market Mr. 11 Tal	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	ug/L	· ·		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
/inyl Chloride	ug/L	0.2 HRL		<0.2	3.3	3.2	3.4	3.5	<0.2	0.9	<0.2	5.3	5.2	1.5	4.4	4.9	5.1
	ug/L		and the state of t	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	ug/L			<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.2	<0.2	<0.3	<0.3
Xylene (total)	ug/L	10000 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.5	<0.5

Notes:

Bold face - detect

0.4 - detected concentration exceeds drinking water criteria

\* - due to new research, the MDH no longer recommends the HRL value

HBV - Health Based Values derived by Minnesota Department of Health
HRL - Health Risk Level derived and promulgated
in rule by Minnesota Department of Health
MCL - Maximum Contaminant Level (USEPA)

### Table 5D Groundwater Analytical Results - Prairie du Chien / Jordan Aquifer Wells Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Stand		Well Name:	SLP10	SLP10	W23	W23	W48	W48	W48	W119	W119	W119	W119	W119	W402
				CWI Name:	ST. LOUIS PARK 10	ST. LOUIS PARK 10	REPUBLIC CREOSOTE DEEP W (W23)	REPUBLIC CREOSOTE DEEP W (W23)	METHODIST HOSPITAL	METHODIST HOSPITAL	METHODIST HOSPITAL	MEADOWBRK .GOLF COURSE	MEADOWBRK .GOLF COURSE	.GOLF COURSE	.GOLF COURSE	MEADOWBRK .GOLF COURSE	
				MN Unique Well No.:	00206442	00206442	00216050	00216050	00216067	00216067	216067	00216009	00216009	00216009	00216009	00216009	00508116
				Aquifer:	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ	PDCJ
				STS Sample ID:			REP. CERO.	REP. CERO. 2	Methodist #1	Methodist #2		MDW#1 280'	MDW#2 330'	MDW#3 380'	MDW#4 425'		
	1 1			MDH Sample No:	200423865		200432992	200432993	200431471	200431475		200501042	200501043	200501044	200501045		
	1 1			Sample Date:	8/16/2004	5/10/2005	12/9/2004	12/9/2004	11/10/04	11/10/04	5/10/2005	01/20/05	01/20/05	01/20/05	01/20/05	5/10/2005	5/10/2005
Detected Contaminants				Notes:	City of St. Louis Park Data	ENSR Split Sample	Spigot Water Sample	Spigot Water Sample, Duplicate	Spigot Water Sample	Spigot Water Sample, Duplicate	ENSR Split Sample	Discrete Sample	Discrete Sample	Discrete Sample	Discrete Sample	ENSR Split Sample	ENSR Split Sample
Benzene	ua/L	10	HRL		<0.2	<0.2	1.9	1.9	2.3	2.3	2.2	<0.2	<0.2	<0.2	<0.2	2.1	0.5
n-Butylbenzene	ug/L	-			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromoethane	ug/L	80	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	300	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	ug/L	60	HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.8	1.7	1.7	1.7	<0.1	<0.1
1,1-Dichloroethane	ug/L	70	HRL		<0.2	<0.2	0.3	0.3	1.0	1.0	0.8	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	ug/L	4	HRL		<0.2	<0.2	<0.2	<0.2	1.0	1.0	0.9	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	ug/L	6	HRL		<0.5	<0.2	<0.5	<0.5	1.4	1.3	<0.2	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2
cis-1,2-Dichloroethene	ug/L	70	HRL		0.7	0.4	42	43	100	110 and	124.0	1.8	2.3	3.8	4.7	<0.2	<0.2
trans-1,2-Dichloroethene	ug/L	100	HRL		0.3	<0.1	2.4	2.5	7.3	7.9	6.7	0.2	0.2	0.4	0.4	<0.1	<0.1
Dichlorodifluoromethane	ug/L	1000	HRL		<0.5	<0.1	<1.0	<1.0	3.0	2.9	2.6	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1
Dichlorofluoromethane	ug/L				<0.5	<0.5	2.1	2.1	5.7	5.7	4.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	700	HRL		<0.2	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Isopropylbenzene	ug/L	300	HRL*		<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
p-Isopropyltoluene	ug/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride (Dichloror	- V	50	HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	1.1	1.0	1.1	<0.5	<0.5
Naphthalene	ug/L	300	HRL		<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	ug/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	ug/L	100	MCL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	ug/L	7	HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Tetrahydrofuran	ug/L	100	HBV		<10	<10	<10	<10	<10	<10	<10	98	91	97	95	<10	<10
Toluene	ug/L	1000	HRL		<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	13	8.8	8.7	6.5	0.7	<0.5
1,1,1-Trichloroethane	ug/L	600	HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichloroethene (TCE)	ug/L	30	HRL		<0.1	<0.1	1.2	1.2	6.3	6.3	5	<0.1	0.1	0.2	0.2	5	<0.1
1,2,4-Trimethylbenzene	ug/L				<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3,5-Trimethylbenzene	ug/L		LIDI		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
/inyl Chloride	ug/L	0.2	HRL		<0.5	<0.2	4.4	4.8	16.0	16.0	15.0	0.2	<0.2	0,3	0.4	13.0	<0.2
	ug/L	-			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
%m-Xylene	ug/L	40000	IIIS:		<0.2	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Kylene (total)	ug/L	10000	HRL	NOT THE STATE OF	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Bold face - detect

- detected concentration exceeds drinking water criteria

\* - due to new research, the MDH no longer

recommends the HRL value

HBV - Health Based Values derived by Minnesota Department of Health

HRL - Health Risk Level derived and promulgated
in rule by Minnesota Department of Health

MCL - Maximum Contaminant Level (USEPA)

#### Table 5E Groundwater Analytical Results - QA/QC Samples Edina Well No. 7 Study - Phase II STS Project 99613-XB

		Drinking Water	Well Name: CWI Name:															P307FB	W136FB	
			MN Unique Well No.:								10 F. A									
			Aquifer: STS Sample ID:	TRIP BLNK	TRIP BLNK	TRIP BLNK	TRIP BLNK	TRIP BLNK	TRIP BLNK	TRIP BLNK	TRIP BLNK	FIELD BLANK	FIELD BLANK	TRIP BLANK	FIELD BLANK	FIELD BLANK	TRIP BLANK	FIELD BLANK	FIELD BLANK	TRIP BLAN
			MDH Sample No:	200429907	200430257	200430527	200431475	200432023	200432998	200514583	200514040	200501040	20054044	200514052	200514582	200514039				Ayeon
			Sample Date:	10/22/2004	10/27/2004	11/1/2004	11/10/2004	11/19/2004	12/9/2004	6/8/2005	6/2/2005	1/20/2005	6/3/2005	6/3/2005	6/8/2005	6/2/2005	5/9/2005	4/25/2005	4/26/2005	4/26/2005
Detected Contaminants			Notes:														ENSR Split Sample	ENSR Split Sample	ENSR Split Sample	ENSR Spl Sample
Benzene	ug/L	10 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
n-Butylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorodibromoethane	ug/L	80 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	ug/L	300 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	ug/L	60 HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.0	0.1	<0.1	0.1	0.7	<0.1	<0.1	0.1	0.1
,1-Dichloroethane	ug/L	70 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
,2-Dichloroethane	ug/L	4 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
,1-Dichloroethene	ug/L	6 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2
cis-1,2-Dichloroethene	ug/L	70 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
rans-1,2-Dichloroethene	ug/L	100 HRL		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichlorodifluoromethane	ug/L	1000 HRL		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1
Dichlorofluoromethane	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	700 HRL	Part Part	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
sopropylbenzene	ug/L	300 HRL*		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
-Isopropyltoluene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride (Dichloro	ug/L	50 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
laphthalene	ug/L	300 HRL		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
-Propylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene	ug/L	100 MCL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
etrachloroethene	ug/L	7 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	0.9	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
etrahydrofuran	ug/L	100 HBV		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
oluene	ug/L	1000 HRL		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
,1,1-Trichloroethane	ug/L	600 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	ug/L	30 HRL		<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
,3,5-Trimethylbenzene	ug/L			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	ug/L	0.2 HRL		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
-Xylene	ug/L			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
&m-Xylene	ug/L			<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
ylene (total)	ug/L	10000 HRL	15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:

Bold face - detect

- detected concentration exceeds drinking water criteria

\* - due to new research, the MDH no longer

recommends the HRL value

HBV - Health Based Values derived by Minnesota Department of Health

HRL - Health Risk Level derived and promulgated
in rule by Minnesota Department of Health

MCL - Maximum Contaminant Level (USEPA)

## Table 6. Tritium Sampling Results - Edina Well No. 7 Sampling City of Edina Well No. 7 Study - Phase II STS Project No. 99613-XB

Sample No.	Conductivity (mlcromho/cm)	Laboratory Code	Well Name	PWSID	Date	Lab Number	Tritium Results (TU)
2064740120360	613	LC 460 Tritium by Electrolytic Enrichment	Edina - Well 7 (360 feet)	1270011	01/20/05	104197	<0.8 +/- 0.5
2064740120400	919	LC 460 Tritium by Electrolytic Enrichment	Edina - Well 7 (400 feet)	1270011	01/20/05	104198	14.4 +/- 1.2
2064740120450	880	LC 460 Tritium by Electrolytic Enrichment	Edina - Well 7 (450 feet)	1270011	01/20/05	104199	14.8 +/- 1.2
2064740120500	879	LC 460 Tritium by Electrolytic Enrichment	Edina - Well 7 (500 feet)	1270011	01/20/05	104200	13.4 +/- 1.0





THE

INFRASTRUCTURE

**IMPERATIVE** 

Appendi





#### **APPENDICES**

Appendix A Appendix to Sampling and Analysis Plan

Appendix B Laboratory Reports

Appendix C Sampling Information Forms



A

The state of the state

THE INFRASTRUCTURE

**IMPERATIVE** 





voice 763-315-6300 763-315-1836 fax www.stsconsultants.com



June 1, 2005

Mr. Nile Fellows Project Manager Minnesota Pollution Control Agency 5.20 Lafayette Road North St. Paul, MN 55155

Re: Appendix to the Sampling and Analysis Plan for the City of Edina Well Evaluation;

STS Project 99613-XB

Dear Mr. Fellows:

We are pleased to present you with the Appendix to the Sampling and Analysis Plan (SAP). The SAP was developed for the Phase I of the City of Edina Well Evaluation Project - STS Project 99613-XA. This Appendix addresses the elements of the Phase II sampling work that differ from the Phase I work scope. This document should be used in conjunction with the SAP.

#### 10 Scope of Sampling Work

One round of groundwater samples will be collected during Phase II of the project from several of the monitoring wells opened to Drift, Platteville, St. Peter and Prairie du Chien / Jordan formations. This sampling will be used to attempt to better delineate the extent of VOC plumes that are affecting the Edina W'ell No. 7. Most of the samples will be collected by splitting samples obtained by ENSR as part of the routine sampling for the Reilly Tar Chemical Corporation Site Management Plan. These split samples will be obtained directly by the MPCA staff. In addition to the ENSR split samples, STS will conduct sampling from several additional wells using the "Century Discrete Sampler". This discrete sampler can be used in wells that are a minimum of 2 inches in diameter. Several 1 inch diameter wells were identified that could also be sampled. These wells would be sampled using a low-flow methodology. All these additional STS collected samples will be analyzed for VOCs.

F'roject organization and responsibilities, sampling and analysis objectives, quality assurance, quality control, laboratory coordination, analytical methods and corrective action remain as described in the SAP. Following are descriptions for the discrete sampling and low-flow sampling. These are the only elements ct the sampling plan that were not addressed in the SAP.

#### 2.0 Discrete Sampling

Discrete sampling will be conducted with the use of the "Century Discrete Sampler". This 1 inch diameter and 5 feet long unit is lowered to the desired depth where the sealed sampling chamber is opened to collect one liter of groundwater. The sampling chamber is then closed, to prevent mixing of the sample with water from different depths. The unit is then retrieved to the surface for sample decanting. The cotained sample is representative of the aquifer formation water, provided that the open or screened section of the well is in good hydraulic communication with the aquifer.

Since no well purging is performed, stabilization parameters monitoring is not conducted.

#### 3.0 Low-Flow Sampling

Some candidate wells for sampling are 1.2 inches in diameter only. Such wells cannot be sampled using the Century Discrete Sampler. These wells will be sampled using a low-flow sampling methodology.

Minnesota Pollution Control Agency STS Project 99613-XB June 1, 2005 Page 2

This methodology follows the general content of the USEPA document: Ground Water Issue – Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures by R.W. Puls and M.J. Barcelona, EPA/540/S-95/504, April 1996.

It is generally accepted that water in the well casing is non-representative of the formation water and reeds to be purged prior to collection of groundwater samples. However in the case of wells screened in a relatively permeable formation, the water in the screened (or open section) interval may indeed be representative of the formation water.

#### Procedure

Low-flow purging shall be completed setting the pump intake (the end of tubing) in the middle or slightly above the middle of the screened interval. Placement of the tubing too close to the bottom of the well will cause increased entrainment of solids which have collected in the well over time. These particles are present as a result of well development, prior purging and sampling events, and natural colloidal transport and deposition.

During low-flow sampling, a polyethylene tubing will be lowered to the middle of the well's screen section. Care will be taken to lower the tubing with as little disturbance of the stagnating water above the screen as possible. A peristaltic pump will be used to purge the well and obtain the water sample.

Low-flow purging has the advantage of minimizing mixing between the overlying stagnant water and water within the screened interval. The objective is to pump in a manner that minimizes stress (drawdown) to the system to the extent practical. Typically, flow rates on the order of 0.1 – 0.5 L/min are used. However, some extremely coarse-textured formations have been successfully sampled in this manner at flow rates to 1 L/min. The maximum pumping rate should be such as to minimize the drawdown in the well. When drawdown is minimal, pumping rate is similar to recharge rate from the formation to the well.

Most of the need for purging has been found to be due to passing the sampling device through the overlying casing water which causes mixing of these stagnant waters and the dynamic waters within the screened interval. Additionally, there is disturbance to suspended sediment collected in the bottom of the casing and the displacement of water out into the formation immediately adjacent to the well screen.

Is plation of the screened interval water from the overlying stagnant water may be accomplished using low-flow minimal drawdown techniques. If the pump intake is located within the screened interval, most of the water pumped will be drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone.

Water quality indicator parameters will be measured to determine purging needs prior to sample collection. The following stabilization parameters will be monitored during the purging: pH, specific conductance, exidation-reduction potential and temperature.

In-line flow cell will be utilized to continuously measure the above parameters. A groundwater sample can be collected when three successive readings of stabilization parameters are within  $\pm 0.1$  for pH, 3% for specific conductance, 10 mV for oxidation-reduction potential, and 0.1 degree C. The volume of purged water is not a criterion used to decide when groundwater sampling can proceed.

Upon parameter stabilization, sampling can be initiated. The in-line device will be disconnected or bypassed during sample collection. Sampling flow rate may remain at established purge rate or may be adjusted slightly to minimize aeration, bubble formation, turbulent filling of sample bottles, or loss of

Minnesota Pollution Control Agency STS Project 99613-XB June 1, 2005 Page 3

volatiles due to extended residence time in tubing. Typically, flow rates less than 0.5 L/min are appropriate. The same device should be used for sampling as was used for purging.

The usual practices for documenting the sampling event should be used for low-flow purging and sampling techniques. This should include, at a minimum: information on the conduct of purging operations (flow rate, drawdown, water quality parameters, volumes extracted at times of measurement), field instrument calibration data, water sampling forms and chain of custody forms. This information coupled with laboratory analytical data and validation data are needed to judge the "usability" of the sampling data.

After groundwater samples were collected, polyethylene tubing will be removed from the well and discarded. New tubing will be used for sampling from each well.

If you have any questions, requests or comments in reference to the presented document – revision, please contact Bob DeGroot at 763/315-6317 or Peter Rzepecki at 763/315-6345. Thank you for the apportunity to assist you.

Sincerely,

STS CONSULTANTS, LTD.

Sixt Zupedei

Peter A. Rzepecki, PhD, PHg, PG Senior-Project Hydrogeologist

Robert L. DeGroot, PG PE Principal Engineer

F'AR/dn



**(** 

THE

INFRASTRUCTURE

**IMPERATIVE** 



В

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 1 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project N	lame	Sampled By
-	ED	INA WELL EV	ALUATION	mathew beckman
mple No: 200	514028 Rece	iving Comme	nts: -	
Coll Date	Coll Time	Field No		Sampling Point
Coll Date 02-JUN-2005	Coll Time 0840	Field No w424		Sampling Point -
		w424		Sampling Point

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indica	ted by	BOLD.		
468 VOCs in Water by GC/MS					07-JUN-05
4-Bromofluorobenzene (surrogate)		97.0	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)		125	70-130	%	
Acetone	<	20	20	ug/L	
Allyl chloride	<	0.5	0.5	ug/L	
Benzene	<	0.2	0.2	ug/L	
Peak present below report level					
Bromobenzene	<	0.2	0.2	ug/L	
Bromochloromethane	<	0.5	0.5	ug/L	
Bromodichloromethane	<	0.2	0.2	ug/L	
Bromoform	<	0.5	0.5	ug/L	
Bromomethane	<	1.0	1.0	ug/L	
n-Butylbenzene	<	0.5	0.5	ug/L	
sec-Butylbenzene	<	0.5	0.5	ug/L	
tert-Butylbenzene	<	0.5	0.5	ug/L	
Carbon tetrachloride	<	0.2	0.2	ug/L	
Chlorobenzene	<	0.2	0.2	ug/L	
Chlorodibromomethane	<	0.5	0.5	ug/L	
Chloroethane	<	0.5	0.5	ug/L	
Chloroform	<	0.1	0.1	ug/L	
Peak present below report level					
Chloromethane	<	1.0	1.0	ug/L	
2-Chlorotoluene	<	0.5	0.5	ug/L	
4-Chlorotoluene	<	0.5	0.5	ug/L	
1,2-Dibromo-3-chloropropane (DBCP)	<	2.0	2.0	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 2 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID	Project Name			Sampled By
-	- EDIN		UATION	mathew beckman
ample No: 200	<b>514028</b> Recei	ving Comment	s: -	
Coll Date 02-JUN-2005	Coll Time 0840	Field No w424		Sampling Point
Trip Blank	Field Blank	ς		

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

trans-1,3-Dichloropropene

Rept Level Units Result Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 07-JUN-05 1,2-Dibromoethane (EDB) < 0.5 0.5 ug/L Dibromomethane < 0.5 0.5 ug/L 1,2-Dichlorobenzene 0.2 0.2 ug/L 1.3-Dichlorobenzene 0.2 0.2 ug/L 0.2 0.2 1.4-Dichlorobenzene ug/L 1.0 Dichlorodifluoromethane 1.0 ug/L 0.2 0.2 1,1-Dichloroethane ug/L 1,2-Dichloroethane 0.2 0.2 ug/L 0.5 0.5 1,1-Dichloroethene ug/L cis-1,2-Dichloroethene 0.2 0.2 ug/L 0.1 trans-1,2-Dichloroethene 0.1 ug/L 0.5 Dichlorofluoromethane 0.5 ug/L 0.2 1,2-Dichloropropane < 0.2 ug/L 0.2 1,3-Dichloropropane < 0.2 ug/L < 0.5 0.5 ug/L 2,2-Dichloropropane The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated. < 0.2 0.2 1,1-Dichloropropene ua/L 0.2 0.2 cis-1,3-Dichloropropene ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated. Ethylbenzene < 0.5 0.5 ug/L

< 0.2

ug/L

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 3 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site_ID		Project Name	Sampled By
<del>-</del>	ED	INA WELL EVALUATION	mathew beckman
nple No: 200	<b>)514028</b> Rece	iving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
02-JUN-2005	0840	w424	-
Trip Blank	Field Blar	nk	

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Note: Positive Organic Results are	Result indicated by BO	Rept Level	Units	Analysis Date
468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
Ethyl ether	< 2.0	2.0	ug/L	
Hexachlorobutadiene	< 1.0	1.0	ug/L	
Isopropylbenzene	< 0.5	0.5	ug/L	
p-Isopropyltoluene	< 0.5	0.5	ug/L	
Methylene chloride	< 0.5	0.5	ug/L	
Methyl ethyl ketone (MEK)	< 10	10	ug/L	
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L	
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L	
Naphthalene	< 1.0	1.0	ug/L	
The spike recoveries for this target in the LCS/LCSD. The sample result			_	e criteria

 n-Propylbenzene
 < 0.5</td>
 0.5
 ug/L

 Styrene
 < 0.5</td>
 0.5
 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

<del>_</del>	~		-
1,1,1,2-Tetrachloroethane	< 0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	< 0.2	0.2	ug/L
Tetrachloroethene	< 0.2	0.2	ug/L
Tetrahydrofuran (THF)	< 10	10	ug/L
Toluene	32	0.5	ug/L
1,2,3-Trichlorobenzene	< 1.0	1.0	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 4 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID	Project Name		Sampled By
-	EDIN	A WELL EVALUATION	mathew beckman
Sample No: 200	<b>0514028</b> Receiv	ing Comments: -	
Coll Date 02-JUN-2005	C <u>oll Time</u> 1	Field No w424	Sampling Point -
Trip Blank	Field Blank		
200514040	200514039		

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. (Cont.) 07-JUN-05 468 VOCs in Water by GC/MS < 0.2 0.2 1,1,1-Trichloroethane ug/L < 0.2 0.2 1,1,2-Trichloroethane ug/L < 0.1 0.1 Trichloroethene (TCE) ug/L Trichlorofluoromethane < 0.5 0.5 ug/L 0.5 ug/L 1,2,3-Trichloropropane < 0.5 < 0.2 0.2 1,1,2-Trichlorotrifluoroethane ug/L < 0.5 0.5 1,2,4-Trimethylbenzene ug/L 1,3,5-Trimethylbenzene < 0.5 0.5 ug/L < 0.2 0.2 Vinyl chloride ug/L < 0.2 0.2 o-Xylene ug/L p&m-Xylene < 0.3 0.3 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Program Name: MPCA-32 METRO MERLA-SF Date Received: 06-JUN-2005

Date Generated: 28-JUN-2005

Request Page: 5 of 36

Samples:

200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514029 Receiving Comments: -Coll Date Coll Time Field No Sampling Point 02-JUN-2005 1115 w423 Trip Blank Field Blank 200514040 200514039

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS 07-JUN-05 4-Bromofluorobenzene (surrogate) 93.8 70-130 1,2-Dichlorobenzene-D4 (surrogate) 126 70-130 % Acetone < 20 20 ug/L Allyl chloride < 0.5 0.5 ug/L Benzene 0.2 < 0.2 ug/L Bromobenzene < 0.2 0.2 ug/L Bromochloromethane 0.5 0.5 ug/L Bromodichloromethane 0.2 0.2 ug/L Bromoform 0.5 0.5 ug/L Bromomethane < 1.0 1.0 ug/L n-Butylbenzene < 0.5 0.5 ug/L sec-Butylbenzene < 0.5 0.5 ug/L tert-Butylbenzene < 0.5 0.5 ug/L Carbon tetrachloride < 0.2 0.2 ug/L Chlorobenzene 0.2 0.2 ug/L Chlorodibromomethane 0.5 0.5 ug/L Chloroethane < 0.5 0.5 ug/L Chloroform < 0.1 0.1 ug/L Chloromethane < 1.0 1.0 ug/L 2-Chlorotoluene 0.5 0.5 ug/L 4-Chlorotoluene < 0.5 0.5 ug/L 1,2-Dibromo-3-chloropropane (DBCP) < 2.0 2.0 ug/L 1,2-Dibromoethane (EDB) < 0.5 0.5 ug/L Dibromomethane < 0.5

ug/L

0.5

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Date Generated: 28-JUN-2005

Request Page: 6 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	ED	INA WELL EVALUATION	mathew beckman
mple No: 200	) <b>514029</b> Rece	iving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
02-JUN-2005	1115	w423	-
Trip Blank	Field Blar	nk	

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. (Cont.) 07-JUN-05 468 VOCs in Water by GC/MS 1,2-Dichlorobenzene 0.2 0.2 ug/L 1.3-Dichlorobenzene 0.2 0.2 ug/L 0.2 0.2 1,4-Dichlorobenzene ug/L Dichlorodifluoromethane 1.0 1.0 ug/L 0.2 0.2 1,1-Dichloroethane ug/L 1,2-Dichloroethane 0.2 0.2 ua/L 0.5 0.5 1,1-Dichloroethene ug/L cis-1,2-Dichloroethene 0.2 0.2 ug/L 0.1 0.1 ug/L trans-1,2-Dichloroethene Dichlorofluoromethane 0.5 0.5 ug/L 0.2 0.2 ug/L 1,2-Dichloropropane < 0.2 0.2 1,3-Dichloropropane ug/L 2,2-Dichloropropane 0.5 0.5 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated. < 0.2 0.2 1,1-Dichloropropene < 0.2 0.2 uq/L cis-1,3-Dichloropropene trans-1,3-Dichloropropene < 0.2 0.2 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated. < 0.5 Ethylbenzene 0.5 ug/L Ethyl ether < 2.0 2.0 ug/L < 1.0 1.0 Hexachlorobutadiene ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Date Generated: 28-JUN-2005

Request Page: 7 of 36

Program Name: MPCA-32 METRO MERLA-SF

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	ED:	INA WELL EVALUATIO	N mathew beckman
ample No: 200	)514029 Rece	iving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
02-JUN-2005	1115	w423	-
Trip Blank	Field Blar	ık_	

Unit: ORGANIC C	HEMISTRY Revie	ewed By <b>MJK</b> on	09-JUN-05		
		Result	Rept Level	Units	Analysis Date
Note: Positive	Organic Results are i	indicated by BO	OLD.		
468 VOCs in Water by	GC/MS (Cont.)				07-JUN-05
Isopropylbenzene		< 0.5	0.5	ug/L	
p-Isopropyltoluene		< 0.5	0.5	ug/L	
Methylene chloride		< 0.5	0.5	ug/L	
Methyl ethyl keton	e (MEK)	< 10	10	ug/L	
Methyl isobutyl ke	tone (MIBK)	< 5.0	5.0	$\mathtt{ug}/\mathtt{L}$	
Methyl tertiary bu	tyl ether (MTBE)	< 2.0	2.0	ug/L	
Naphthalene		< 1.0	1.0	ug/L	
	veries for this target D. The sample result				e criteria
n-Propylbenzene		< 0.5	0.5	ug/L	
Styrene		< 0.5	0.5	ug/L	
The spike reco	veries for this target	analyte did no	t meet the QC	acceptanc	e criteria
in the LCS/LCSI	D. Since the recoveri	es showed a pos	itive bias and	d the targ	et analyte
	ed in the sample, the				
1,1,1,2-Tetrachlor	oethane	< 0.2	0.2	ug/L	
1,1,2,2-Tetrachlore	oethane	< 0.2	0.2	ug/L	
Tetrachloroethene		< 0.2	0.2	ug/L	
Tetrahydrofuran (T	HF)	< 10	10	ug/L	
Toluene		2.6	0.5	ug/L	
1,2,3-Trichloroben:	zene	< 1.0	1.0	ug/L	
1,2,4-Trichloroben	zene	< 0.5	0.5	ug/L	
1,1,1-Trichloroetha	ane	< 0.2	0.2	ug/L	
1,1,2-Trichloroetha	ane	< 0.2	0.2	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL

Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 8 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514029 Receiving Comments: -Coll Date Coll Time Field No Sampling Point 02-JUN-2005 1115 Trip Blank Field Blank 200514040 200514039

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicat	ed by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
Trichloroethene (TCE)	<	0.1	0.1	ug/L	
Trichlorofluoromethane	<	0.5	0.5	ug/L	
1,2,3-Trichloropropane	<	0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	<	0.5	0.5	ug/L	
1,3,5-Trimethylbenzene	<	0.5	0.5	${\tt ug/L}$	
Vinyl chloride	<	0,2	0.2	ug/L	
o-Xylene	<	0.2	0.2	ug/L	
p&m-Xylene	<	0.3	0.3	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 9 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site_ID		Project	Name	Sampled By
-	ED	INA WELL E	ALUATION	mathew beckman
Sample No: 200	<b>514030</b> Rece	iving Comm	ents: -	
Coll Date	Coll Time	Field No		Sampling Point
02-JUN-2005 Trip Blank	1415 Field Blar	w15		-
200514040	200514039			
*****	*****	*****	SAMPLE RESULT	S ******

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS 07-JUN-05 4-Bromofluorobenzene (surrogate) 93.1 70~130 1,2-Dichlorobenzene-D4 (surrogate) 131 70-130 % Acetone < 20 20 ug/L Allyl chloride < 0.5 0.5 uq/L Benzene < 0.2 0.2 ug/L Bromobenzene < 0.2 0.2 ug/L Bromochloromethane 0.5 0.5 ug/L Bromodichloromethane 0.2 0.2 ug/L Bromoform < 0.5 0.5 ug/L Bromomethane < 1.0 1.0 ug/L n-Butylbenzene < 0.5 0.5 ug/L sec-Butylbenzene < 0.5 0.5 ug/L tert-Butylbenzene < 0.5 0.5 ug/L Carbon tetrachloride 0.2 0.2 ug/L Chlorobenzene 0.2 0.2 < ug/L Chlorodibromomethane < 0.5 0.5 ug/L Chloroethane < 0.5 0.5 ug/L Chloroform 0.6 0.1 ug/L Chloromethane < 1.0 1.0 ug/L 2-Chlorotoluene < 0.5 0.5 ug/L 4-Chlorotoluene < 0.5 0.5 ug/L 1,2-Dibromo-3-chloropropane (DBCP) < 2.0 2.0 ug/L 1,2-Dibromoethane (EDB) < 0.5 0.5 ug/L Dibromomethane < 0.5 0.5 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Frogram Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Project Name

Request Page: 10 of 36

Sampled By

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005
Original Date Reported: 09-JUN-2005

Original Date Reported: 09-JUN-2005

- EDINA WELL EVALUATION mathew beckman

Sample No: 200514030 Receiving Comments: 
Coll Date Coll Time Field No Sampling Point
02-JUN-2005 1415 w15 
Trip Blank Field Blank

200514040 200514039

Site ID

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
1,2-Dichlorobenzene	<	0.2	0.2	ug/L	
1,3-Dichlorobenzene	<	0.2	0.2	ug/L	
1,4-Dichlorobenzene	<	0.2	0.2	ug/L	
Dichlorodifluoromethane	<	1.0	1.0	ug/L	
1,1-Dichloroethane	<	0.2	0.2	ug/L	
1,2-Dichloroethane	<	0.2	0.2	ug/L	
1,1-Dichloroethene	<	0.5	0.5	ug/L	
cis-1,2-Dichloroethene	<	0.2	0.2	ug/L	
trans-1,2-Dichloroethene	<	0.1	0.1	ug/L	
Dichlorofluoromethane	<	0.5	0.5	ug/L	
1,2-Dichloropropane	<	0.2	0.2	ug/L	
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

 1,1-Dichloropropene
 < 0.2</td>
 0.2
 ug/L

 cis-1,3-Dichloropropene
 < 0.2</td>
 0.2
 ug/L

 trans-1,3-Dichloropropene
 < 0.2</td>
 0.2
 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

Ethylbenzene < 0.5 ug/L Ethyl ether < 2.0 2.0 ug/L Hexachlorobutadiene < 1.0 1.0 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 11 of 36

Samples: 200514028 - 200514036

Peak present below report level

1,2,3-Trichlorobenzene

1,2,4-Trichlorobenzene

1,1,1-Trichloroethane

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID	Project	Name		Sampled	Ву
-	EDINA WELL 1	EVALUATION	ma	athew beck	man
Sample No: 200	514030 Receiving Com	ments: -	<del></del>	·	· · · · · · · · · · · · · · · · · · ·
Coll Date	Coll Time Field No		Camplin	ng Point	
02-JUN-2005	1415 w15		Sampili	- -	
Trip Blank	Field Blank				
200514040	200514039				
	CHEMISTRY Rev	iewed By <b>MJK</b> on			
		Result	Rept Level	Units	Analysis Date
Note: Positiv	e Organic Results are	indicated by H	BOLD.		
468 VOCs in Water b	v GC/MS (Cont.)				07-JUN-05
Isopropylbenzene	2	< 0.5	0.5	ug/L	07-0010-05
p-Isopropyltolue		< 0.5	0.5	ug/L	
Methylene chlori		< 0.5	0.5	ug/L	
Methyl ethyl ket	one (MEK)	< 10	10	ug/L	
Methyl isobutyl		< 5.0	5.0	ug/L	
Methyl tertiary	butyl ether (MTBE)	< 2.0	2.0	ug/L	
Naphthalene		< 1.0	1.0	ug/L	
The spike re	coveries for this targe	et analyte did n	ot meet the QC	acceptance	e criteria
in the LCS/L	CSD. The sample result	should be cons	idered as estim	nated.	
n-Propylbenzene		< 0.5	0.5	ug/L	
Styrene		< 0.5	0.5	ug/L	
	coveries for this targe				
	CSD. Since the recover				
	cted in the sample, the				on.
1,1,1,2-Tetrachl		< 0.2	0.2	ug/L	
1,1,2,2-Tetrachl		< 0.2	0.2	ug/L	
Tetrachloroethen	· <del>-</del>	< 0.2	0.2	ug/L	
Tetrahydrofuran	(THE)	< 10	10	ug/L	
Toluene		< 0.5	0.5	ug/L	

< 1.0

< 0.5

< 0.2

ug/L

ug/L

ug/L

1.0

0.5

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 12 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site_ID	Project Name	Sampled By
-	EDINA WELL EVALUATION	mathew beckman
<u> </u>		

Sample No: 200514030 Receiving Comments: -

Coll Date Coll Time Field No Sampling Point

02-JUN-2005 1415 w15 -

Trip Blank Field Blank 200514040 200514039

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Rept Level Units Analysis Date Result Note: Positive Organic Results are indicated by BOLD. 07-JUN-05 468 VOCs in Water by GC/MS (Cont.) 0.2 1,1,2-Trichloroethane < 0.2 ug/L < 0.1 0.1 Trichloroethene (TCE) ug/L < 0.5 0.5 ug/L Trichlorofluoromethane < 0.5 0.5 1,2,3-Trichloropropane ug/L 1,1,2-Trichlorotrifluoroethane < 0.2 0.2 ug/L 1,2,4-Trimethylbenzene < 0.5 0.5 ug/L 0.5 1,3,5-Trimethylbenzene < 0.5 ug/L Vinyl chloride < 0.2 0.2 ug/L < 0.2 0.2 o-Xylene ug/L < 0.3 0.3 ug/L p&m~Xylene

Amended Report - Client Copy - Report Of Analytical Results

Program: PL

Date Received: 06-JUN-2005 Date Generated: 28-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 13 of 36

200514028 - 200514036 Samples:

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman

200514031 Receiving Comments:

Coll Date Coll Time Field No Sampling Point

02-JUN-2005 1545 w429

Field Blank Trip Blank 200514040 200514039

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS 07-JUN-05 4-Bromofluorobenzene (surrogate) 96.5 70-130 % 1,2-Dichlorobenzene-D4 (surrogate) 128 70-130 % Acetone < 20 20 ua/L Allyl chloride 0.5 0.5 ug/L Benzene 0.2 0.2 ua/L Bromobenzene 0.2 0.2 ug/L Bromochloromethane 0.5 0.5 ug/L Bromodichloromethane < 0.2 0.2 ug/L Bromoform < 0.5 0.5 ug/L Bromomethane < 1.0 1.0 ua/L n-Butylbenzene < 0.5 0.5 ug/L sec-Butylbenzene 0.5 0.5 ug/L tert-Butylbenzene 0.5 0.5 ug/L Carbon tetrachloride < 0.2 0.2 ug/L Chlorobenzene < 0.2 0.2 ug/L Chlorodibromomethane < 0.5 0.5 ug/L Chloroethane < 0.5 0.5 ug/L Chloroform < 0.1 0.1 ug/L Chloromethane 1.0 1.0 ug/L 2-Chlorotoluene < 0.5 0.5 ug/L 4-Chlorotoluene < 0.5 0.5 ug/L 1,2-Dibromo-3-chloropropane (DBCP) < 2.0 2.0 ug/L 1,2-Dibromoethane (EDB) 0.5 0.5 ug/L Dibromomethane < 0.5 0.5 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 14 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
Sample No: 200	<b>514031</b> Recei	ving Comments: -	
Coll Date 02-JUN-2005	Coll Time 1545	Field No w429	Sampling Point -
Trip Blank	Field Blan	k	

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Result	Rept Level Units	Analysis Date
Note: Positive Organic Results are	indicated by B	OLD.	
468 VOCs in Water by GC/MS (Cont.)			07-JUN-05
1,2-Dichlorobenzene	< 0.2	0.2 ug/L	0, 001, 03
1,3-Dichlorobenzene	< 0.2	0.2 ug/L	
1,4-Dichlorobenzene	< 0.2	0.2 ug/L	
Dichlorodifluoromethane	< 1.0	1.0 ug/L	
1,1-Dichloroethane	< 0.2	0.2 ug/L	
1,2-Dichloroethane	< 0.2	0.2 ug/L	
1,1-Dichloroethene	< 0.5	0.5 ug/L	
cis-1,2-Dichloroethene	< 0.2	0.2 ug/L	
trans-1,2-Dichloroethene	< 0.1	0.2 ug/L	
Dichlorofluoromethane	< 0.5	0.1 ug/L	
1,2-Dichloropropane		3	
1,3-Dichloropropane	< 0.2	0.2 ug/L	
2,2-Dichloropropane	< 0.5	0.5 ug/L	
The spike recoveries for this targe	<del>-</del>		nce criteria
in the LCS/LCSD. The sample result	should be consi	dered as estimated.	
1,1-Dichloropropene	< 0.2	0.2 ug/L	
cis-1,3-Dichloropropene	< 0.2	0.2 ug/L	
trans-1,3-Dichloropropene	< 0.2	0.2 ug/L	
The spike recoveries for this targe	t analyte did no	ot meet the QC accepta	nce criteria
in the LCS/LCSD. The sample result	should be consi	dered as estimated.	
Ethylbenzene	< 0.5	0.5 ug/L	
Ethyl ether	< 2.0	2.0 ug/L	
Hexachlorobutadiene	< 1.0	1.0 ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 15 of 36

Samples: 200514028 - 200514036

1,1,1-Trichloroethane

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name		Sampled	Ву	
- EDINA W		A WELL EVALUATION	I	mathew beckman		
Sample No: 200	<b>514031</b> Receiv	ing Comments: -				
Coll Date	Coll Time I	Field No	Sampli	ng Point		
02-JUN-2005	1545	w429		-		
Trip Blank	Field Blank					
200514040	200514039	-				
	CHEMISTRY	******* SAMPLE RESUL Reviewed By <b>MJK</b> (				
		Result	Rept Level	Units	Analysis Date	
Note: Positiv	e Organic Resu	lts are indicated by	BOLD.		-	
68 VOCs in Water b	-	nt.)			07-JUN-05	
Isopropylbenzene		< 0.5	0.5	ug/L		
p-Isopropyltolue		< 0.5	0.5	ug/L		
Methylene chlori		< 0.5	0.5	ug/L		
Methyl ethyl ket		< 10	10	ug/L		
Methyl isobutyl		< 5.0	5.0	ug/L		
Methyl tertiary	butyl ether (MT		2.0	ug/L		
Naphthalene		< 1.0	1.0	ug/L		
		is target analyte did			criteria	
	USD. The sampl	e result should be cor				
n-Propylbenzene		< 0.5	0.5	ug/L		
Styrene		< 0.5	0.5	ug/L		
		is target analyte did				
		recoveries showed a p				
		ple, the datum was acc		nualificatio	n.	
1,1,1,2-Tetrachl		< 0.2	0.2	ug/L		
1,1,2,2-Tetrachl		< 0.2	0.2	ug/L		
Tetrachloroethen	_	< 0.2	0.2	ug/L		
Tetrahydrofuran	(THF)	< 10	10	ug/L		
Toluene		< 0.5	0.5	ug/L		
-	below report 1	evel				
1,2,3-Trichlorob		< 1.0	1.0	ug/L		
1,2,4-Trichlorob		< 0.5	0.5	ug/L		
1 1 1 - 1 1 1	•	1				

< 0.2

0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 16 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By	_
-	ED	INA WELL EVALUATION	mathew beckman	
ample No: 2005	14031 Rece	iving Comments: -		
Coll Date	Coll Time	Field No	Sampling Point	
02-JUN-2005	1545	w429	-	

Trip Blank Field Blank 200514040 200514039

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicat	ed by 1	BOLD.		
468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
1,1,2-Trichloroethane	<	0.2	0.2	ug/L	
Trichloroethene (TCE)	<	0.1	0.1	ug/L	
Trichlorofluoromethane	<	0.5	0.5	ug/L	
1,2,3-Trichloropropane	<	0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	<	0.5	0.5	ug/L	
1,3,5-Trimethylbenzene	<	0.5	0.5	ug/L	
Vinyl chloride	<	0.2	0.2	ug/L	
o-Xylene	<	0.2	0.2	ug/L	
p&m-Xylene	<	0.3	0.3	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 17 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Result Rept Level Units Analysis Date

Original Date Reported: 09-JUN-2005

Site ID		Project Na	me	Sampled By
-	EDIN	A WELL EVA	LUATION	mathew beckman
Sample No: 200	<b>514032</b> Receiv	ring Commen	ts: -	
Coll Date	Coll Time	Field No		Sampling Point
02-JUN-2005	1720 m	onitor we	WIH	-
Trip Blank	Field Blank	_		

200514040 200514039

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

Note: Positive Organic Results are	indicated by BO	DLD.		_
VOCs in Water by GC/MS				07-JU
4-Bromofluorobenzene (surrogate)	98.6	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)	126	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	< 0.2	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	
sec-Butylbenzene	< 0.5	0.5	ug/L	
tert-Butylbenzene	< 0.5	0.5	ug/L	
Carbon tetrachloride	< 0.2	0.2	ug/L	
Chlorobenzene	< 0.2	0.2	ug/L	
Chlorodibromomethane	< 0.5	0.5	ug/L	
Chloroethane	< 0.5	0.5	ug/L	
Chloroform	< 0.1	0.1	ug/L	
Chloromethane	< 1.0	1.0	ug/L	
2-Chlorotoluene	< 0.5	0.5	ug/L	
4-Chlorotoluene	< 0.5	0.5	ug/L	
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 18 of 36

Samples: 200514028 - 200514036 Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	ED	INA WELL EVALUATION	mathew beckman
mple No: 200	<b>1514032</b> Rece	eiving Comments: -	
Coll Date 02-JUN-2005	Coll Time 1720	Field No W14	Sampling Point -
Trip Blank	Field Bla	nk	
F			

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are in	ndicated by E	BOLD.		
468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
1,2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	< 0.2	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	ug/L	
cis-1,2-Dichloroethene	< 0.2	0.2	ug/L	
trans-1,2-Dichloroethene	< 0.1	0.1	ug/L	
Dichlorofluoromethane	< 0.5	0.5	ug/L	
1,2-Dichloropropane	< 0.2	0.2	ug/L	
1,3-Dichloropropane	< 0.2	0.2	ug/L	
2,2-Dichloropropane	< 0.5	0.5	ug/L	
The spike recoveries for this target	analyte did n	ot meet the QC	acceptanc	e criteria
in the LCS/LCSD. The sample result s	hould be cons	idered as estim	ated.	
1,1-Dichloropropene	< 0.2	0.2	ug/L	
cis-1,3-Dichloropropene	< 0.2	0.2	ug/L	
trans-1,3-Dichloropropene	< 0.2	0.2	ug/L	•
The spike recoveries for this target	analyte did n	ot meet the QC	acceptanc	e criteria
in the LCS/LCSD. The sample result s	hould be cons	idered as estim	ated.	
Ethylbenzene	< 0.5	0.5	ug/L	
Ethyl ether	< 2.0	2.0	ug/L	
Hexachlorobutadiene	< 1.0	1.0	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Date Generated: 28-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 19 of 36

Samples: 200514028 - 200514036

1,1,1-Trichloroethane

Date Reported: 28-JUN-2005 Original Date Reported: 09-JUN-2005

Site ID	P:	Project Name			Sampled	Ву
<del>-</del>	- EDINA WEL		ION	m	athew becl	kman
Sample No: 20	0 <b>514032</b> Receivin	ng Comments:				
Coll Date	Coll Time Fi	eld No		Samplin	ng Point	
02-JUN-2005	1720 mor	itor we W	4		_	
Trip Blank	Field Blank					
200514040	200514039					
	**************************************	***** SAMPLE  Reviewed B			******	****
			esult	Rept Level	Units	Analysis Date
Note: Positi	ve Organic Result	s are indica	ted by	BOLD.		
468 VOCs in Water 1	by GC/MS (Cont	.)				07-JUN-05
Isopropylbenzen	2	<	0.5	0.5	ug/L	V, USI
p-Isopropyltolu		<	0.5	0.5	ug/L	
Methylene chlor	ide	<	0.5	0.5	ug/L	
Methyl ethyl ke	tone (MEK)	<	10	10	ug/L	
Methyl isobutyl	ketone (MIBK)	<	5.0	5.0	ug/L	
Methyl tertiary	butyl ether (MTBE	> <	2.0	2.0	ug/L	
Naphthalene		<	1.0	1.0	ug/L	
The spike re	ecoveries for this	target analy	te did r	not meet the QC	acceptanc	e criteria
	CCSD. The sample					
n-Propylbenzene		<	0.5	0.5	ug/L	
Styrene		<	0.5	0.5	ug/L	
in the LCS/I	ecoveries for this LCSD. Since the rected in the sampl	ecoveries sho	wed a po	ositive bias and	d the targ	et analyte
1,1,1,2-Tetrach		<		0.2	ug/L	····
1,1,2,2-Tetrach		<	0.2	0.2	ug/L	
Tetrachloroethe		<	0.2	0.2	ug/L	
Tetrahydrofuran	(THF)		10	10	ug/L	
Toluene	•	<	0.5	0.5	ug/L	
Peak present	: below report lev				~5, -	
1,2,3-Trichlorol	•	<	1.0	1.0	ug/L	
1,2,4-Trichlorol		<	0.5	0.5	ug/L ug/L	
=,=,===================================		`	0.5	0.5	ug/ L	

< 0.2

0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 20 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID	Project Name	Sampled By
<u></u>	EDINA WELL EVALUATION	mathew beckman
mple No: 200	514032 Receiving Comments: -	
Coll Date	Coll Time Field No	Sampling Point
02-JUN-2005	1720 monitor we Wid	-
Marin Dlamle	Field Blank	
Trip Blank		

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

Note: Positive Organic Results a		sult ed by	Rept Level BOLD.	Units	Analysis Date
468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
1,1,2-Trichloroethane	<	0.2	0.2	ug/L	
Trichloroethene (TCE)	<	0.1	0.1	ug/L	
Trichlorofluoromethane	<	0.5	0.5	${\tt ug/L}$	
1,2,3-Trichloropropane	<	0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	<	0.5	0.5	${\tt ug/L}$	
1,3,5-Trimethylbenzene	<	0.5	0.5	ug/L	
Vinyl chloride	<	0.2	0.2	ug/L	
o-Xylene	<	0.2	0.2	ug/L	
p&m-Xylene	<	0.3	0.3	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 21 of 36

Project Name

Samples: 200514028 - 200514036 Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

Site ID

468 VOCs in Water by GC/MS

 4-Bromofluorobenzene (surrogate)
 96.5
 70-130
 %

 1,2-Dichlorobenzene-D4 (surrogate)
 124
 70-130
 %

 Acetone
 < 20</td>
 20
 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Allyl chloride	<	0.5	0.5	ug/L
Benzene		1.4	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L
sec-Butylbenzene	<	0.5	0.5	ug/L
tert-Butylbenzene	<	0.5	0.5	ug/L
Carbon tetrachloride	<	0.2	0.2	ug/L
Chlorobenzene	<	0.2	0.2	ug/L
Chlorodibromomethane	<	0.5	0.5	ug/L
Chloroethane	<	0.5	0.5	ug/L
Chloroform	<	0.1	0.1	ug/L
Chloromethane	<	1.0	1.0	ug/L
2-Chlorotoluene	<	0.5	0.5	ug/L
4-Chlorotoluene	<	0.5	0.5	ug/L

Sampled By

07-JUN-05

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 22 of 36

Samples: 200514028 - 200514036 Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	EDII	NA WELL EVALUATION	mathew beckman
mple No: 200	514033 Recei	ving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
02-JUN-2005	1850	w132	-
Trip Blank	Field Blank	<u> </u>	
	200514039	= 1	

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are		-	Units	Analysis Date
Note: Positive Organic Results are	indicated by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	ug/L	
1,2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	0.3	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	ug/L	
cis-1,2-Dichloroethene	< 0.2	0.2	ug/L	
Peak present below report level				
trans-1,2-Dichloroethene	< 0.1	0.1	ug/L	
Dichlorofluoromethane	< 0.5	0.5	ug/L	
Peak present below report level				
1,2-Dichloropropane	< 0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
1,3-Dichloropropane	< 0.2	0.2	ug/L	
2,2-Dichloropropane	< 0.5	0.5	ug/L	
The spike recoveries for this targe	t analyte did	not meet the QC	acceptance	e criteria
in the LCS/LCSD. The sample result				
1,1-Dichloropropene	< 0.2	0.2	ug/L	
cis-1,3-Dichloropropene	< 0.2	0.2	ug/L	
			-	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 23 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name		Sample	ed By
-	ED	INA WELL EVALUATION	m	athew be	ckman
Sample No: 200514	033 Rece	iving Comments: -		<u>.                                    </u>	
Coll Date Co	ll Time	Field No	Sampli	ng Point	
02-JUN-2005	1850	w132		_	
Trip Blank F	ield Blar	nk			
200514040	200514039	<del></del> -			
******	*****	****** SAMPLE RESU	TS *********	******	*****
Unit: ORGANIC CH	EMISTRY	Reviewed By MJK	on <b>09-JUN-05</b>		
		Result	Rept Level	Units	Analysis Date
Note: Positive O	rganic Re	sults are indicated by	BOLD.		
VOCs in Water by GO	C/MS (G	Cont.)			07-JUN-05
trans-1,3-Dichlorop	ropene	< 0.2	0.2	ug/L	
The spike recove	eries for	this target analyte did	not meet the QC	acceptar	nce criteria
in the LCS/LCSD.	The sam	ple result should be co	nsidered as esti	mated.	
Ethylbenzene		< 0.5	0.5	ug/L	
Ethyl ether		< 2.0	2.0	ug/L	
${\tt Hexachlorobutadiene}$		< 1.0	1.0	ug/L	
Isopropylbenzene		< 0.5	0.5	ug/L	
p-Isopropyltoluene		< 0.5	0.5	ug/L	
Methylene chloride		< 0.5	0.5	ug/L	
Methyl ethyl ketone		< 10	10	ug/L	
Methyl isobutyl keto		< 5.0	5.0	ug/L	
Methyl tertiary buty	vl ether (1		2.0	ug/L	
Naphthalene		< 1.0	1.0	ug/L	
		this target analyte did			ice criteria
	The com	ple result should be co	nsidered as esti	mated.	
	The Sam				
n-Propylbenzene	THE Sam	< 0.5	0.5	ug/L	
	THE SAM	< 0.5 < 0.5	0.5 0.5	ug/L ug/L	
n-Propylbenzene Styrene The spike recove	ries for	< 0.5 this target analyte did	0.5 not meet the QC	ug/L acceptan	
n-Propylbenzene Styrene The spike recove	ries for	< 0.5	0.5 not meet the QC	ug/L acceptan	
n-Propylbenzene Styrene The spike recove in the LCS/LCSD.	ries for Since t	< 0.5 this target analyte did	0.5 not meet the QC positive bias and	ug/L acceptan d the tar	get analyte
n-Propylbenzene Styrene The spike recove in the LCS/LCSD.	ries for Since the se	< 0.5 this target analyte did he recoveries showed a	0.5 not meet the QC positive bias and	ug/L acceptan d the tar	get analyte
n-Propylbenzene Styrene The spike recove in the LCS/LCSD. was not detected	ries for Since the in the se	< 0.5 this target analyte did he recoveries showed a ample, the datum was ac	0.5 not meet the QC positive bias and cepted without qu	ug/L acceptan d the tar ualificat	get analyte

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 24 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By	
-	EDIN	IA WELL EVALUATION	mathew beckman	
Sample No: 200	)514033 Receiv	ring Comments: -		
Coll Date 02-JUN-2005	Coll Time 1850	Field No w132	Sampling Point -	
Trip Blank	Field Blank			
200514040	200514039			

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Rept Level Units Result Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 07-JUN-05 Tetrahydrofuran (THF) < 10 10 ug/L Toluene < 0.5 0.5 ug/L 1.0 1.0 1,2,3-Trichlorobenzene ug/L < 0.5 0.5 1,2,4-Trichlorobenzene ug/L < 0.2 1,1,1-Trichloroethane 0.2 ug/L 1,1,2-Trichloroethane < 0.2 0.2 ug/L Trichloroethene (TCE) < 0.1 0.1 ug/L < 0.5 0.5 Trichlorofluoromethane ug/L < 0.5 0.5 1,2,3-Trichloropropane ug/L 1,1,2-Trichlorotrifluoroethane 0.2 0.2 ug/L 0.5 < 0.5 ug/L 1,2,4-Trimethylbenzene < 0.5 0.5 1,3,5-Trimethylbenzene ug/L Vinyl chloride 0.7 0.2 ug/L < 0.2 0.2 ug/L o-Xylene < 0.3 0.3 p&m-Xylene ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 25 of 36

Samples: 200514028 ~ 200514036

Date Reported: 28-JUN-2005
Original Date Reported: 09-JUN-2005

original bace Reported. Us con 2002

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514034 Receiving Comments: -Coll Date Coll Time Field No Sampling Point 02-JUN-2005 2030 pg2 Trip Blank Field Blank 200514040 200514039 

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS

07-JUN-05

4-Bromofluorobenzene (surrogate)	95.6	70-130	%
1,2-Dichlorobenzene-D4 (surrogate)	123	70-130	%
Acetone	< 20	20	ug/L

Allyl chloride	<	0.5	0.5	ug/L
Benzene		0.3	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L
sec-Butylbenzene	<	0.5	0.5	ug/L
tert-Butylbenzene	<	0.5	0.5	ug/L
Carbon tetrachloride	<	0.2	0.2	ug/L
Chlorobenzene	<	0.2	0.2	ug/L
Chlorodibromomethane	<	0.5	0.5	ug/L
Chloroethane	<	0.5	0.5	ug/L
Chloroform	<	0.1	0.1	ug/L
Chloromethane	<	1.0	1.0	ug/L
2-Chlorotoluene	<	0.5	0.5	ug/L
4-Chlorotoluene	<	0.5	0.5	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 26 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site_ID	Pr	oject Name	Sampled By
-	EDINA V	WELL EVALUATION	mathew beckman
mple No: 200	514034 Receiving	g Comments: -	
Coll Date		eld No	Sampling Point
Coll Date		pas (6)—	Sampling Point -
		7 0/3	Sampling Point -

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	e indicated by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	ug/L	
1,2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	< 0.2	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	ug/L	
cis-1,2-Dichloroethene	0.8	0.2	ug/L	
trans-1,2-Dichloroethene	0.2	0.1	ug/L	
Dichlorofluoromethane	< 0.5	0.5	ug/L	
1,2-Dichloropropane	< 0.2	0.2	ug/L	
1,3-Dichloropropane	< 0.2	0.2	ug/L	
2,2-Dichloropropane	< 0.5	0.5	ug/L	
The spike recoveries for this targ	et analyte did	not meet the OC	acceptano	ce criteria
in the LCS/LCSD. The sample resul				
1.1-Dichloropropene	< 0.2	0.2	ug/L	

1 1 Dieblessessesses		0.2	0.2	ua/L
1,1-Dichloropropene		0.2	0.2	ug/L
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L
trans-1.3-Dichloropropene	<	0.2	0.2	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 27 of 36

Sampled By

mathew beckman

Samples: 200514028 - 200514036

Site ID

Project Name

EDINA WELL EVALUATION

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Coll Date Coll Time Field No		Sampli	ng Point	
02-JUN-2005 2030 pg2	962	7-	-	
Trip Blank Field Blank	100-			
200514040 200514039				
********	SAMPLE RESULTS	*****	*****	****
Unit: ORGANIC CHEMISTRY Revi	iewed By <b>MJK</b> on	09-JUN-05		
	Result	Rept Level	Units	Analysis Dat
Note: Positive Organic Results are	indicated by Bo	OLD.		
VOCs in Water by GC/MS (Cont.)				07-JUN-05
Ethylbenzene	< 0.5	0.5	ug/L	0, 001, 02
Ethyl ether	< 2.0	2.0	ug/L	
Hexachlorobutadiene	< 1.0	1.0	ug/L	
Isopropylbenzene	< 0.5	0.5	ug/L	
p-Isopropyltoluene	< 0.5	0.5	ug/L	
Methylene chloride	< 0.5	0.5	ug/L	
Methyl ethyl ketone (MEK)	< 10	10	ug/L	
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L	
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L	
Naphthalene	< 1.0	1.0	ug/L	
The spike recoveries for this targe	t analyte did no	t meet the QC	acceptanc	e criteria
	< 0.5	0.5	ug/L	
in the LCS/LCSD. The sample result	< 0.5 < 0.5	0.5 0.5	ug/L ug/L	
in the LCS/LCSD. The sample result n-Propylbenzene Styrene	< 0.5	0.5	ug/L	e criteria
in the LCS/LCSD. The sample result n-Propylbenzene Styrene The spike recoveries for this targe	< 0.5 t analyte did no	0.5 t meet the QC	ug/L acceptanc	
in the LCS/LCSD. The sample result n-Propylbenzene Styrene The spike recoveries for this targe in the LCS/LCSD. Since the recover	< 0.5 t analyte did no ies showed a pos	0.5 t meet the QC itive bias and	ug/L acceptanc d the targ	et analyte
in the LCS/LCSD. The sample result n-Propylbenzene Styrene The spike recoveries for this targe	< 0.5 t analyte did no ies showed a pos	0.5 t meet the QC itive bias and	ug/L acceptanc l the targ	et analyte
in the LCS/LCSD. The sample result n-Propylbenzene Styrene The spike recoveries for this targe in the LCS/LCSD. Since the recover was not detected in the sample, the	< 0.5 t analyte did no ies showed a pos datum was accep	0.5  t meet the QC  itive bias and  ted without qu  0.2	ug/L acceptanc i the targualificati ug/L	et analyte
in the LCS/LCSD. The sample result n-Propylbenzene Styrene The spike recoveries for this targe in the LCS/LCSD. Since the recover was not detected in the sample, the 1,1,1,2-Tetrachloroethane	< 0.5 et analyte did no ies showed a pos datum was accep < 0.2	0.5 t meet the QC itive bias and ted without qu 0.2 0.2	ug/L acceptanc d the targ nalificati ug/L ug/L	et analyte
in the LCS/LCSD. The sample result n-Propylbenzene Styrene The spike recoveries for this targe in the LCS/LCSD. Since the recover was not detected in the sample, the 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane	< 0.5 et analyte did no ies showed a pos datum was accep < 0.2 < 0.2	0.5  t meet the QC  itive bias and  ted without qu  0.2	ug/L acceptanc i the targualificati ug/L	et analyte

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 28 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

_ Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
Sample No: 200	<b>)514034</b> Recei	ving Comments: -	
Coll Date 02-JUN-2005	Coll Time 2030	Field No	Sampling Point
Trip Blank	Field Blank	<	
200514040	200514039		

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicat	ed by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
1,2,3-Trichlorobenzene	<	1.0	1.0	ug/L	
1,2,4-Trichlorobenzene	<	0.5	0.5	ug/L	
1,1,1-Trichloroethane	<	0.2	0.2	ug/L	
1,1,2-Trichloroethane	<	0.2	0.2	ug/L	
Trichloroethene (TCE)	<	0.1	0.1	ug/L	
Trichlorofluoromethane	<	0.5	0.5	ug/L	
1,2,3-Trichloropropane	<	0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	<	0.5	0.5	ug/L	
1,3,5-Trimethylbenzene	<	0.5	0.5	ug/L	
Vinyl chloride		0.2	0.2	ug/L	
o-Xylene	<	0.2	0.2	ug/L	
p&m-Xylene	<	0.3	0.3	$\mathtt{ug}/\mathtt{L}$	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 29 of 36

07-JUN-05

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID	Project Name		e ID Project Name		ID Project Name		Project Name		Project Name Sampled By		Project Name Sam			Project Name Sampled		Project Name Sampl		Project Name Sampled By		Project Name Sampled		Project Name Sampled By	Sampled By
-	EDI	NA WELL EV	ALUATION	mathew beckman																			
nple No: 200	<b>514035</b> Recei	ving Comme	nts: -																				
Coll Date	Coll Time	Field No		Sampling Point																			
02-JUN-2005	2150	w124		-																			
Trip Blank	Field Blan	k																					
200514040	200514039																						
*****	*****	****** S	AMPLE RESULTS	******																			

Result Rept Level Units Analysis Date
Note: Positive Organic Results are indicated by BOLD.

Reviewed By MJK on 09-JUN-05

468	VOCs	in	Water	by	GC/MS

Unit: ORGANIC CHEMISTRY

 4-Bromofluorobenzene (surrogate)
 96.1
 70-130
 %

 1,2-Dichlorobenzene-D4 (surrogate)
 128
 70-130
 %

 Acetone
 < 20</td>
 20
 uq/L

Allyl chloride	<	0.5	0.5	ug/L
Benzene	<	0.2	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L
sec-Butylbenzene	<	0.5	0.5	ug/L
tert-Butylbenzene	<	0.5	0.5	ug/L
Carbon tetrachloride	<	0.2	0.2	ug/L
Chlorobenzene	<	0.2	0.2	ug/L
Chlorodibromomethane	<	0.5	0.5	ug/L
Chloroethane	<	0.5	0.5	ug/L
Chloroform	<	0.1	0.1	ug/L
Chloromethane	<	1.0	1.0	ug/L
2-Chlorotoluene	<	0.5	0.5	ug/L
4-Chlorotoluene	<	0.5	0.5	ug/L
				<b>J</b> .

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 30 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	EDIN	A WELL EVALUATION	mathew beckman
mple No: 200	<b>514035</b> Receiv	ving Comments: -	
Coll Date	C <u>oll Time</u> 2150	Field No	Sampling Point
	2130	*****	
Trip Blank	Field Blank		

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

Note: Positive Organic Results ar	Result e indicated by E	_	Units	Analysis Date
468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	ug/L	
1,2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	0.6	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
cis-1,2-Dichloroethene	< 0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
trans-1,2-Dichloroethene	< 0.1	0.1	$\mathtt{ug}/\mathtt{L}$	
Dichlorofluoromethane	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
1,2-Dichloropropane	< 0.2	0.2	ug/L	
1,3-Dichloropropane	< 0.2	0.2	ug/L	
2,2-Dichloropropane	< 0.5	0.5	ug/L	
The spike recoveries for this targing the LCS/LCSD. The sample result				ce criteria
<del>-</del>				
1,1-Dichloropropene	< 0.2	0.2	ug/L	
cis-1,3-Dichloropropene	< 0.2	0.2	ug/L	
trans-1,3-Dichloropropene	< 0.2	0.2	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

EDINA WELL EVALUATION

Request Page: 31 of 36

mathew beckman

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005
Original Date Reported: 09-JUN-2005

Site ID	Project Name	Sampled By

 Sample No:
 200514035
 Receiving Comments:

 Coll Date
 Coll Time
 Field No
 Sampling Point

 02-JUN-2005
 2150
 w124

 Trip Blank
 Field Blank

 200514040
 200514039

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
Ethylbenzene	< 0.5	0.5	ug/L	
Ethyl ether	< 2.0	2.0	$\mathtt{ug}/\mathtt{L}$	
Hexachlorobutadiene	< 1.0	1.0	ug/L	
Isopropylbenzene	< 0.5	0.5	ug/L	
p-Isopropyltoluene	< 0.5	0.5	ug/L	
Methylene chloride	< 0.5	0.5	ug/L	
Methyl ethyl ketone (MEK)	< 10	10	ug/L	
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L	
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L	
Naphthalene	< 1.0	1.0	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

n-Propylbenzene	<	0.5	0.5	ug/L
Styrene	<	0.5	0.5	ug/L

1,1,1,2-Tetrachloroethane	< 0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	< 0.2	0.2	ug/L
Tetrachloroethene	< 0.2	0.2	ug/L
Tetrahydrofuran (THF)	< 10	10	ug/L
Toluene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 1.0	1.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 32 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Nam	ne	Sampled By
-	EDI	NA WELL EVAL	UATION	mathew beckman
mple No: 200	<b>9514035</b> Recei	ving Comment	.s: -	
Coll Date	Coll Time	Field No		Sampling Point
02-JUN-2005	2150	w124		-
Trip Blank	Field Blank	k		
<u>-</u>				

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

Note: Positive Organic Results are		- · ·	t Level	Units	Analysis Date
468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
1,2,4-Trichlorobenzene	<	0.5	0.5	ug/L	
1,1,1-Trichloroethane	<	0.2	0.2	ug/L	
1,1,2-Trichloroethane	<	0.2	0.2	ug/L	
Trichloroethene (TCE)	<	0.1	0.1	ug/L	
Trichlorofluoromethane	<	0.5	0.5	ug/L	
1,2,3-Trichloropropane	<	0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	<	0.5	0.5	ug/L	
1,3,5-Trimethylbenzene	<	0.5	0.5	ug/L	
Vinyl chloride	<	0.2	0.2	ug/L	
o-Xylene	<	0.2	0.2	ug/L	
p&m-Xylene	<	0.3	0.3	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Date Received: 06-JUN-2005 Program: PL Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 33 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Nam	ne		Sampled	Ву
-	ED	INA WELL EVAL	UATION	m	athew bec	kman
Sample No: 20	<b>0514036</b> Rece	iving Comment	.s: <b>-</b>		<del> </del>	
Coll Date	Coll Time	Field No		Samplin	ng Point	
02-JUN-2005	1203	w425			-	
Trip Blank	Field Blar	nk				
200514040	200514039	9				
	C CHEMISTRY	SAL	MPLE RESULT: d By <b>MJK</b> on		******	****
			Result	Rept Level	Units	Analysis Date
Note: Positi	ve Organic Re	sults are ind	licated by H	BOLD.		
1 TTO C	1 00/40					

468 VOCs in Water by GC/MS	07-JUN-05

4-Bromofluorobenzene (surrogate)	97.1	70-130	%
1,2-Dichlorobenzene-D4 (surrogate)	126	70-130	%
Acetone	< 20	20	ug/L

Allyl chloride	<	0.5	0.5	ug/L
Benzene	<	0.2	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L
sec-Butylbenzene	<	0.5	0.5	ug/L
tert-Butylbenzene	<	0.5	0.5	ug/L
Carbon tetrachloride	<	0.2	0.2	ug/L
Chlorobenzene	<	0.2	0.2	ug/L
Chlorodibromomethane	<	0.5	0.5	ug/L
Chloroethane	<	0.5	0.5	ug/L
Chloroform	<	0.1	0.1	ug/L
Chloromethane	<	1.0	1.0	ug/L
2-Chlorotoluene	<	0.5	0.5	ug/L
4-Chlorotoluene	<	0.5	0.5	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 34 of 36

200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project 1	Name	Sampled By
-	EDIN	A WELL EV	ALUATION	mathew beckman
ample No: 200	<b>514036</b> Receiv	ring Comme	ents: -	
Coll Date	Coll Time	Field No		Sampling Point
02-JUN-2005	1203	w425		-
Marin Diami	Field Blank			
Trip Blank				

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Rept Level Units Result Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 07-JUN-05 < 2.0 1,2-Dibromo-3-chloropropane (DBCP) 2.0 ug/L 1,2-Dibromoethane (EDB) < 0.5 0.5 ug/L 0.5 Dibromomethane 0.5 ug/L < 0.2 1,2-Dichlorobenzene 0.2 ug/L 1,3-Dichlorobenzene < 0.2 0.2 ug/L 1,4-Dichlorobenzene < 0.2 0.2 ug/L Dichlorodifluoromethane < 1.0 1.0 ua/L 1,1-Dichloroethane < 0.2 0.2 ug/L 1,2-Dichloroethane 0.2 0.2 ug/L 1,1-Dichloroethene 0.5 0.5 ug/L cis-1,2-Dichloroethene 0.2 0.2 ug/L < 0.1 trans-1,2-Dichloroethene 0.1 ug/L Dichlorofluoromethane < 0.5 0.5 ug/L 1,2-Dichloropropane < 0.2 0.2 ua/L < 0.2 0.2 1,3-Dichloropropane ug/L 2,2-Dichloropropane 0.5 0.5 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria

in the LCS/LCSD. The sample result should be considered as estimated.

1,1-Dichloropropene < 0.2 0.2 ug/L < 0.2 0.2 ug/L cis-1,3-Dichloropropene < 0.2 0.2 trans-1,3-Dichloropropene ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Project Name

Request Page: 35 of 36

Sampled By

Samples: 200514028 - 200514036

Site ID

1,2,3-Trichlorobenzene

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

_	EI	OINA WELL EVA	LUATION	m	nathew bec	
Sample No: 200	)514036 Rece	eiving Commer	nts: -			
Coll Date	Coll Time	Field No		Sampli	ng Point	
02-JUN-2005	1203	w425			-	
Trip Blank	Field Bla	nk				
200514040	20051403	9				
*****	****	***** S	AMPLE RESULT	S *******	*****	****
Unit: ORGANIC	C CHEMISTRY	Review	ved By <b>MJK</b> or	1 09-JUN-05		
			Result	Rept Level	Units	Analysis Date
Note: Positiv	ve Organic Re	sults are in	ndicated by	BOLD.		
8 VOCs in Water b	ov GC/MS (	Cont.)				07-JUN-05
Ethylbenzene	-1 -4,	•	< 0.5	0.5	ug/L	07 0011 03
Ethyl ether			< 2.0	2.0	ug/L	
Hexachlorobutad:	iene		< 1.0	1.0	ug/L	
Isopropylbenzene	е		< 0.5	0.5	ug/L	
p-Isopropyltolue	ene		< 0.5	0.5	ug/L	
Methylene chlori	ide		< 0.5	0.5	ug/L	
Methyl ethyl ket	tone (MEK)		< 10	10	ug/L	
Methyl isobutyl	ketone (MIBK)		< 5.0	5.0	ug/L	
Methyl tertiary	butyl ether	MTBE)	< 2.0	2.0	ug/L	
Naphthalene			< 1.0	1.0	ug/L	
The spike re	coveries for	this target	analyte did n	ot meet the QC	acceptanc	e criteria
				idered as esti		
n-Propylbenzene		-	< 0.5	0.5	ug/L	
Styrene			< 0.5	0.5	ug/L	
The spike re	coveries for	this target a	analvte did n	ot meet the QC	_	e criteria
				sitive bias and		
				pted without q	_	
1,1,1,2-Tetrachl		mip 20, circ de	< 0.2	0.2	ug/L	<b></b>
1,1,2,2-Tetrachl			< 0.2	0.2	_	
Tetrachloroethen			< 0.2	0.2	ug/L	
Tetrahydrofuran			< 10	10	ug/L	
Toluene	\/				ug/L	
TOTAGUA			3.5	0.5	ug/L	

< 1.0

ug/L

1.0

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 36 of 36

Samples: 200514028 - 200514036

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site_ID		Project Name	Sampled By
-	EDIN	A WELL EVALUATI	ION mathew beckman
ample No: 200	<b>9514036</b> Receiv	ing Comments:	-
Coll Date 02-JUN-2005	Coll Time F	rield Now425	Sampling Point -
	m! 11 m] 1		
Trip Blank	Field Blank		

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicat	ed by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
1,2,4-Trichlorobenzene	<	0.5	0.5	ug/L	
1,1,1-Trichloroethane	<	0.2	0.2	ug/L	
1,1,2-Trichloroethane	<	0.2	0.2	ug/L	
Trichloroethene (TCE)	<	0.1	0.1	$\mathtt{ug}/\mathtt{L}$	
Trichlorofluoromethane	<	0.5	0.5	ug/L	
1,2,3-Trichloropropane	<	0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	<	0.5	0.5	ug/L	
1,3,5-Trimethylbenzene	<	0.5	0.5	ug/L	
Vinyl chloride	<	0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
o-Xylene	<	0.2	0.2	ug/L	
p&m-Xylene	<	0.3	0.3	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 1 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUAT	TION mathew beckman
mple No: 200	<b>9514037</b> Recei	ving Comments:	-
Coll Date	Coll Time	Field No	Sampling Point
02-JUN-2005	2030	w429ms	-
Trip Blank	Field Blan	k	

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS

07-JUN-05

4-Bromofluorobenzene (surrogate)	96.7	70-130	%
1,2-Dichlorobenzene-D4 (surrogate)	128	70-130	%
Acetone	< 20	20	ug/L

Allyl chloride	<	0.5	0.5	ug/L
Benzene	<	0.2	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L
sec-Butylbenzene	<	0.5	0.5	ug/L
tert-Butylbenzene	<	0.5	0.5	ug/L
Carbon tetrachloride	<	0.2	0.2	ug/L ,
Chlorobenzene	<	0.2	0.2	ug/L
Chlorodibromomethane	<	0.5	0.5	ug/L
Chloroethane	<	0.5	0.5	ug/L
Chloroform	<	0.1	0.1	ug/L
Peak present below report level			<b>;</b>	
Chloromethane	<	1.0	1.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 2 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005
Original Date Reported: 09-JUN-2005

Original Date Reported: 09-00N-2005

Site ID	Project Name	Sampled By
-	EDINA WELL EVALUATION	mathew beckman

Sample No: 200514037 | Receiving Comments: -

Coll Date Coll Time Field No Sampling Point

02-JUN-2005 2030 w429ms -

Trip Blank Field Blank 200514040 200514039

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
2-Chlorotoluene	<	0.5	0.5	ug/L	
4-Chlorotoluene	<	0.5	0.5	ug/L	
1,2-Dibromo-3-chloropropane (DBCP)	<	2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	<	0.5	0.5	ug/L	
Dibromomethane	<	0.5	0.5	ug/L	
1,2-Dichlorobenzene	<	0.2	0.2	ug/L	
1,3-Dichlorobenzene	<	0.2	0.2	ug/L	
1,4-Dichlorobenzene	<	0.2	0.2	ug/L	
Dichlorodifluoromethane	<	1.0	1.0	ug/L	
1,1-Dichloroethane	<	0.2	0.2	ug/L	
1,2-Dichloroethane	<	0.2	0.2	ug/L	
1,1-Dichloroethene	<	0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
cis-1,2-Dichloroethene	<	0.2	0.2	ug/L	
trans-1,2-Dichloroethene	<	0.1	0.1	ug/L	
Dichlorofluoromethane	<	0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
1,2-Dichloropropane	<	0.2	0.2	ug/L	
1,3-Dichloropropane	<	0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
2,2-Dichloropropane	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

 1,1-Dichloropropene
 < 0.2</td>
 0.2
 ug/L

 cis-1,3-Dichloropropene
 < 0.2</td>
 0.2
 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005 Request Page: 3 of 16 Samples: 200514037 - 200514040 Date Reported: 28-JUN-2005 Original Date Reported: 09-JUN-2005 Project Name Site ID Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514037 | Receiving Comments: -Coll Date Coll Time Field No Sampling Point 02-JUN-2005 2030 w429ms Trip Blank Field Blank 200514040 200514039 Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05 Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 07-JUN-05 < 0.2 trans-1,3-Dichloropropene 0.2 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

Ethylbenzene	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$
Ethyl ether	< 2.0	2.0	ug/L
Hexachlorobutadiene	< 1.0	1.0	ug/L
Isopropylbenzene	< 0.5	0.5	ug/L
p-Isopropyltoluene	< 0.5	0.5	ug/L
Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	< 1.0	1.0	ug/L
mb	3 . 3:1		

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

n-Propylbenzene	<	0.5	0.5	ug/L
Styrene	<	0.5	0.5	ug/L

		_		•
1,1,1,2-Tetrachloroethane	<	0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	<	0.2	0.2	ug/L
Tetrachloroethene	<	0.2	0.2	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 4 of 16

200514037 - 200514040 Samples:

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	EDII	NA WELL EVALUATION	mathew beckman
Sample No: 200	514037 Recei	ving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
02-JUN-2005	2030	w429ms	-
Trip Blank	Field Blank	ς	

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 07-JUN-05 (Cont.) 468 VOCs in Water by GC/MS Tetrahydrofuran (THF) < 10 10 ug/L Toluene < 0.5 0.5 ug/L Peak present below report level < 1.0 1,2,3-Trichlorobenzene 1.0 ug/L 1,2,4-Trichlorobenzene < 0.5 0.5 ug/L 1,1,1-Trichloroethane < 0.2 0.2 ug/L 1,1,2-Trichloroethane < 0.2 0.2 ug/L Trichloroethene (TCE) < 0.1 0.1 ug/L < 0.5 Trichlorofluoromethane 0.5 ug/L < 0.5 0.5 ug/L 1,2,3-Trichloropropane 1,1,2-Trichlorotrifluoroethane < 0.2 0.2 ug/L 1,2,4-Trimethylbenzene < 0.5 0.5 uq/L < 0.5 1,3,5-Trimethylbenzene 0.5 ug/L Vinyl chloride < 0.2 0.2 ug/L < 0.2 0.2 o-Xylene ug/L p&m-Xylene < 0.3 0.3 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 5 of 16

Samples: 200514037 - 200514040 Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

	Project N	ame	Sampled By
ED:	INA WELL EV	ALUATION	mathew beckman
<b>514038</b> Rece	iving Comme	nts: -	
Coll Time	Field No		Sampling Point
2150	w429msd		-
Field Blar	nk		
200514039	9		
		AMPLE RESULTS	. ********
	514038 Rece  Coll Time 2150  Field Blar 200514039	EDINA WELL EVEN  514038 Receiving Comme	Coll Time Field No 2150 w429msd  Field Blank 200514039

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS
4-Bromofluorobenzene (surrogate) 94.8 70-130 %
1,2-Dichlorobenzene-D4 (surrogate) 128 70-130 %

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. Since the recoveries showed a positive bias and the target analyte

< 20

20

ug/L

was not detected in the sample, the datum was accepted without qualification.

<b>-</b> '				-1
Allyl chloride	<	0.5	0.5	$\mathtt{ug}/\mathtt{L}$
Benzene	<	0.2	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L
sec-Butylbenzene	<	0.5	0.5	ug/L
tert-Butylbenzene	<	0.5	0.5	ug/L
Carbon tetrachloride	<	0.2	0.2	ug/L
Chlorobenzene	<	0.2	0.2	ug/L
Chlorodibromomethane	<	0.5	0.5	ug/L
Chloroethane	<	0.5	0.5	ug/L
Chloroform	<	0.1	0.1	ug/L
Peak present below report level				
Chloromethane	<	1.0	1.0	ug/L

07-JUN-05

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 6 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	ED	INA WELL EVALUATION	mathew beckman
mple No: 200	)514038 Rece	iving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
	2150	w429msd	
02-JUN-2005	2150	W4ZJMSQ	<del>-</del>
Trip Blank	Field Blar		-

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Note: Positive Organic Results are i	Result indicated by BO	Rept Level	Units	Analysis Date
468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
2-Chlorotoluene	< 0.5	0.5	ug/L	
4-Chlorotoluene	< 0.5	0.5	ug/L	
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	ug/L	
1,2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	< 0.2	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	ug/L	
cis-1,2-Dichloroethene	< 0.2	0.2	ug/L	
trans-1,2-Dichloroethene	< 0.1	0.1	ug/L	
Dichlorofluoromethane	< 0.5	0.5	ug/L	
1,2-Dichloropropane	< 0.2	0.2	ug/L	
1,3-Dichloropropane	< 0.2	0.2	ug/L	
2,2-Dichloropropane	< 0.5	0.5	ug/L	
The spike recoveries for this target	analyte did not	t meet the QC	acceptance	criteria

< 0.2

in the LCS/LCSD. The sample result should be considered as estimated.

1,1-Dichloropropene

cis-1,3-Dichloropropene

0.2 ug/L

< 0.2 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 7 of 16

Samples: 200514037 - 200514040

Tetrachloroethene

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID	Project Name  EDINA WELL EVALUATION			Sampled	Ву
- EDI			m	mathew beckman	
Sample No: 200514038 Recei	iving Comments	: -			
Coll Date Coll Time	Field No		Sampli	ng Point	
02-JUN-2005 2150	w429msd			_	
Trip Blank Field Blan	ık				
200514040 200514039					
**********	****** CAME	T.E RESHLT	C *******	*****	****
	SAME	LE KESODI.	3		
Unit: ORGANIC CHEMISTRY	Reviewed	By <b>MJK</b> on	. 09-มบท-05		
		Result	Rept Level	Units	Analysis Date
Note: Positive Organic Res	sults are indi	cated by I	BOLD.		
468 VOCs in Water by GC/MS (C	Cont.)				07-JUN-05
trans-1,3-Dichloropropene		< 0.2	0.2	ug/L	
The spike recoveries for	this target and	lyte did n	ot meet the OC	acceptanc	e criteria
in the LCS/LCSD. The samp					
Ethylbenzene		< 0.5	0.5	ug/L	
Ethyl ether		< 2.0	2.0	ug/L	
Hexachlorobutadiene		< 1.0	1.0	ug/L	
Isopropylbenzene		< 0.5	0.5	ug/L	
p-Isopropyltoluene		< 0.5	0.5	ug/L	
Methylene chloride		< 0.5	0.5	ug/L	
Methyl ethyl ketone (MEK)		< 10	10	ug/L	
Methyl isobutyl ketone (MIBK)		< 5.0	5.0	ug/L	
Methyl tertiary butyl ether (M	(TBE)	< 2.0	2.0	ug/L	
Naphthalene		< 1.0	1.0	ug/L	
The spike recoveries for t	chis target ana	lyte did n	ot meet the QC	acceptance	e criteria
	ole result shou				
n-Propylbenzene		< 0.5	0.5	ug/L	
Styrene		< 0.5	0.5	ug/L	
The spike recoveries for t	his target ana	lvte did n	ot meet the OC	-	e criteria
in the LCS/LCSD. Since th					
was not detected in the sa				_	<del>-</del>
1,1,1,2-Tetrachloroethane	ampre, che datu	m was acce	pred without di 0.2		J11 •
1,1,2,2-Tetrachloroethane		< 0.2	0.2	ug/L	
T, I, Z, Z-Teclachioloechane		- 0.4	0.4	ug/L	

< 0.2

0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 8 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID	Project Name	Sampled By	
-	EDINA WELL EVALUATION	mathew beckman	
mple No: 2005	14038 Receiving Comments: -		•
	Coll Time Field No	Sampling Point	

Trip Blank Field Blank 200514040 200514039

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Resul	t Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated	by BOLD.		
468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
Tetrahydrofuran (THF)	< 10	10	ug/L	
Toluene	< 0.	5 0.5	ug/L	
Peak present below report level				
1,2,3-Trichlorobenzene	< 1.	0 1.0	ug/L	
1,2,4-Trichlorobenzene	< 0.	5 0.5	ug/L	
1,1,1-Trichloroethane	< 0.	2 0.2	ug/L	
1,1,2-Trichloroethane	< 0.	2 0.2	ug/L	
Trichloroethene (TCE)	< 0.	1 0.1	ug/L	
Trichlorofluoromethane	< 0.	5 0.5	ug/L	
1,2,3-Trichloropropane	< 0.	5 0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	< 0.	2 0.2	ug/L	
1,2,4-Trimethylbenzene	< 0.	5 0.5	ug/L	
1,3,5-Trimethylbenzene	< 0.	5 0.5	ug/L	
Vinyl chloride	< 0.	2 0.2	ug/L	
o-Xylene	< 0.	2 0.2	ug/L	
p&m-Xylene	< 0.	3 0.3	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 9 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name		Sample	d By
-	ED	INA WELL EVALUATION		mathew bec	
Sample No: 200	) <b>514039</b> Rece	iving Comments: -	<del></del>		
Coll Date	Coll Time	Field No	Sam	pling Point	
02-JUN-2005	1340	field blan		-	
Trip Blank	Field Blan	nk			
200514040	200514039	<del></del>			
Unit: ORGANIC	C CHEMISTRY	Reviewed By <b>MJ</b>	K on <b>09-JUN-05</b>		
		Resul	t Rept Lev	el Units	Analysis Date
Note: Positiv	ve Organic Re	sults are indicated	by BOLD.		
168 VOCs in Water b	by GC/MS				07-JUN-05
4-Bromofluorobe	nzene (surroga	te) 97.	4 70-130	%	
1,2-Dichloroben	zene-D4 (surro	gate) 126	70-130	%	
Acetone		< 20	20	ug/L	
The spike re	coveries for	this target analyte of	did not meet the	QC acceptan	ce criteria

Allyl chloride	<	0.5	0.5	ug/L
Benzene	<	0.2	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L
sec-Butylbenzene	<	0.5	0.5	ug/L
tert-Butylbenzene	<	0.5	0.5	ug/L
Carbon tetrachloride	<	0.2	0.2	ug/L
Chlorobenzene	<	0.2	0.2	ug/L
Chlorodibromomethane	<	0.5	0.5	ug/L
Chloroethane	<	0.5	0.5	ug/L
Chloroform		0.7	0.1	ug/L
Chloromethane	<	1.0	1.0	ug/L
2-Chlorotoluene	<	0.5	0.5	ug/L
4-Chlorotoluene	<	0.5	0.5	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 10 of 16 200514037 - 200514040

Date Reported: 28-JUN-2005 Original Date Reported: 09-JUN-2005

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman

Sample No: 200514039 | Receiving Comments: -

200514039

Coll Date Coll Time Field No Sampling Point 1340 field blan

02-JUN-2005 Trip Blank Field Blank

Unit: ORGANIC CHEMISTRY

200514040

Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 07-JUN-05 2.0 1,2-Dibromo-3-chloropropane (DBCP) < 2.0 ug/L 1,2-Dibromoethane (EDB) 0.5 0.5 ug/L Dibromomethane 0.5 0.5 ug/L 0.2 0.2 1.2-Dichlorobenzene ug/L 1,3-Dichlorobenzene 0.2 0.2 ug/L 1,4-Dichlorobenzene 0.2 0.2 ug/L Dichlorodifluoromethane 1.0 1.0 ua/L 1,1-Dichloroethane 0.2 0.2 ug/L 1,2-Dichloroethane 0.2 0.2 ug/L 0.5 0.5 1,1-Dichloroethene ug/L 0.2 0.2 ug/L cis-1,2-Dichloroethene trans-1,2-Dichloroethene < 0.1 0.1 ug/L ug/L Dichlorofluoromethane < 0.5 0.5 < 0.2 0.2 ug/L 1,2-Dichloropropane < 0.2 1,3-Dichloropropane 0.2 ug/L < 0.5 0.5 ug/L 2,2-Dichloropropane The spike recoveries for this target analyte did not meet the QC acceptance criteria

in the LCS/LCSD. The sample result should be considered as estimated.

1,1-Dichloropropene < 0.2 0.2 ug/L < 0.2 0.2 ug/L cis-1,3-Dichloropropene < 0.2 0.2 trans-1,3-Dichloropropene ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 11 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site_ID		Project Name Sampled By		Project Name Sample	
-	ED:	INA WELL EVALUATION	M mathew beckman		
mple No: 200	<b>)514039</b> Rece	iving Comments: -			
Coll Date	Coll Time	Field No	Sampling Point		
02-JUN-2005	1340	field blan	-		
Trip Blank	Field Blar	nk			
		•			

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

	Result	Rept Level Unit	s Analysis Date
Note: Positive Organic Results are			<b></b>
468 VOCs in Water by GC/MS (Cont.)			07-JUN-05
Ethylbenzene	< 0.5	0.5 ug/	L
Ethyl ether	< 2.0	2.0 ug/	L
Hexachlorobutadiene	< 1.0	1.0 ug/	L
Isopropylbenzene	< 0.5	0.5 ug/	L
p-Isopropyltoluene	< 0.5	0.5 ug/	L
Methylene chloride	< 0.5	0.5 ug/	ь
Methyl ethyl ketone (MEK)	< 10	10 ug/	L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0 ug/	L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0 ug/	L
Naphthalene	< 1.0	1.0 ug/	L
The spike recoveries for this targe	t analyte did no	t meet the QC accep	tance criteria
in the LCS/LCSD. The sample result			
n-Propylbenzene	< 0.5	0.5 ug/	
Styrene	< 0.5	0.5 ug/	

1,1,1,2-Tetrachloroethane	< 0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	< 0.2	0.2	ug/L
Tetrachloroethene	< 0.2	0.2	ug/L
Tetrahydrofuran (THF)	< 10	10	ug/L
Toluene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 1.0	1.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 12 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name	Sampled By
-	ED	INA WELL EVALUATION	mathew beckman
ample No: 200	<b>)514039</b> Rece	iving Comments: -	
Coll Date 02-JUN-2005	Coll Time 1340	Field No field blan	Sampling Point
Trip Blank	Field Bla	nk	
200514040	20051403	9	

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicat	ed by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
1,2,4-Trichlorobenzene	<	0.5	0.5	ug/L	
1,1,1-Trichloroethane	<	0.2	0.2	ug/L	
1,1,2-Trichloroethane	<	0.2	0.2	ug/L	
Trichloroethene (TCE)	<	0.1	0.1	ug/L	
Trichlorofluoromethane	<	0.5	0.5	ug/L	•
1,2,3-Trichloropropane	<	0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	<	0.5	0.5	ug/L	
1,3,5-Trimethylbenzene	<	0.5	0.5	ug/L	
Vinyl chloride	<	0.2	0.2	ug/L	
Peak present below report level					
o-Xylene	<	0.2	0.2	ug/L	
p&m-Xylene	<	0.3	0.3	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 28-JUN-2005

Request Page: 13 of 16

Samples: 200514037 - 200514040 Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID Project Name Sampled By
- EDINA WELL EVALUATION mathew beckman

Sample No: 200514040 Receiving Comments: 
Coll Date Coll Time Field No Sampling Point

02-JUN-2005 - trip blank -

Trip Blank Field Blank 200514040 200514039

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS 07-JUN-05

 4-Bromofluorobenzene (surrogate)
 98.5
 70-130
 %

 1,2-Dichlorobenzene-D4 (surrogate)
 129
 70-130
 %

 Acetone
 < 20</td>
 20
 ug/L

Allyl chloride	<	0.5	0.5	ug/L
Benzene	<	0.2	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L
sec-Butylbenzene	<	0.5	0.5	ug/L
tert-Butylbenzene	<	0.5	0.5	ug/L
Carbon tetrachloride	<	0.2	0.2	ug/L
Chlorobenzene	<	0.2	0.2	ug/L
Chlorodibromomethane	<	0.5	0.5	ug/L
Chloroethane	<	0.5	0.5	ug/L
Chloroform	<	0.1	0.1	ug/L
Chloromethane	<	1.0	1.0	ug/L
2-Chlorotoluene	<	0.5	0.5	ug/L
4-Chlorotoluene	<	0.5	0.5	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 14 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005
Original Date Reported: 09-JUN-2005

original bate Reported: 09-00N-2003

Site ID		Project Name	Sampled By	
	EDI	NA WELL EVALUATION	mathew beckman	
nple No: 200	<b>)514040</b> Recei	ving Comments: -		
Coll Date 02-JUN-2005	Coll Time	Field No trip blank	Sampling Point -	
Trip Blank	Field Blan	k		

Unit: ORGANIC CHEMISTRY

Reviewed By MJK on 09-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results ar	e indicated by BO	OLD.		
468 VOCs in Water by GC/MS (Cont.)				07-JUN-05
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	ug/L	
1,2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	< 0.2	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	ug/L	
cis-1,2-Dichloroethene	< 0.2	0.2	ug/L	
trans-1,2-Dichloroethene	< 0.1	0.1	ug/L	
Dichlorofluoromethane	< 0.5	0.5	ug/L	
1,2-Dichloropropane	< 0.2	0.2	ug/L	
1,3-Dichloropropane	< 0.2	0.2	ug/L	
2,2-Dichloropropane	< 0.5	0.5	ug/L	
The spike recoveries for this targ	get analyte did no	t meet the QC	acceptanc	e criteria
in the LCS/LCSD. The sample result	lt should be consi	dered as estim	ated.	
1,1-Dichloropropene	< 0.2	0.2	ug/L	
cis-1,3-Dichloropropene	< 0.2	0.2	ug/L	
trans-1,3-Dichloropropene	< 0.2	0.2	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the LCS/LCSD. The sample result should be considered as estimated.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 15 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site_ID	Project Name			Sampled By			
-	EDINA WELL EVALUATION			mathew be	ckman		
Sample No: 200	)514040 Rece	iving Comments:	_		<del></del>		
Coll Date	Coll Time	Field No		Sampling Point			
02-JUN-2005	-	trip blank		-			
Trip Blank	Field Bla	nk					
200514040	20051403	9					
*****	* * * * * * * * * * * * *	****** SAMPLE	RESULTS ****	*****	****		
Unit: ORGANIC	C CHEMISTRY	Reviewed By	м <b>јк</b> on <b>09-ј</b> и	N-05			
		Res	sult Rept	Level Units	Analysis Date		
Motor Pogitiv	re Organia Pa	culte are indicate	od her BOID		_		

	Result	Rept Level Unit	s Analysis Date
Note: Positive Organic Results are	indicated by Bo	OLD.	
468 VOCs in Water by GC/MS (Cont.)			07-JUN-05
Ethylbenzene	. 0.5	0.5	* *
-	< 0.5	0.5 ug/	
Ethyl ether	< 2.0	2.0 ug/	L
Hexachlorobutadiene	< 1.0	1.0 ug/	L
Isopropylbenzene	< 0.5	0.5 ug/	L
p-Isopropyltoluene	< 0.5	0.5 ug/	L
Methylene chloride	< 0.5	0.5 ug/	L
Methyl ethyl ketone (MEK)	< 10	10 ug/	L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0 ug/	L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0 ug/	L
Naphthalene	< 1.0	1.0 ug/	L
The spike recoveries for this target	analyte did no	t meet the QC accep	otance criteria
in the LCS/LCSD. The sample result			
n-Propylbenzene	< 0.5	0.5 ug/	L
Styrene	< 0.5	0.5 ug/	L
The spike recoveries for this target	analyte did no	t meet the OC accer	tance criteria
in the LCS/LCSD. Since the recoveri			
was not detected in the sample, the			
1,1,1,2-Tetrachloroethane	< 0.2	0.2 ug/	
1,1,2,2-Tetrachloroethane			
1,1,2,2-lettaciiloloetiialle	< 0.2	0.2 ug/	P

Tetrachloroethene < 0.2 0.2 ug/L Tetrahydrofuran (THF) < 10 10 ug/L Toluene < 0.5 0.5 ug/L 1,2,3-Trichlorobenzene < 1.0 1.0 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 28-JUN-2005

Request Page: 16 of 16

Samples: 200514037 - 200514040

Date Reported: 28-JUN-2005

Original Date Reported: 09-JUN-2005

Site ID		Project Name		Sampled By		
-		EDINA WELL EVALUAT	NOI!	mathew beckman		
G1 - N	200514040	Regaining Comments.			<del></del>	
Sample No:	200514040	Receiving Comments:	~			

Coll Date Coll Time Field No Sampling Point

O2-JUN-2005 - trip blank -

Trip Blank Field Blank
200514040 200514039

Unit: ORGANIC CHEMISTRY Reviewed By MJK on 09-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 07-JUN-05 468 VOCs in Water by GC/MS (Cont.) 1,2,4-Trichlorobenzene < 0.5 0.5 ug/L 1,1,1-Trichloroethane 0.2 0.2 ug/L 0.2 1,1,2-Trichloroethane 0.2 ug/L 0.1 Trichloroethene (TCE) < 0.1 ug/L < 0.5 0.5 Trichlorofluoromethane ug/L 1,2,3-Trichloropropane < 0.5 0.5 ug/L 0.2 1,1,2-Trichlorotrifluoroethane < 0.2 ug/L 0.5 1,2,4-Trimethylbenzene < 0.5 ug/L 1,3,5-Trimethylbenzene < 0.5 0.5 ug/L 0.2 Vinyl chloride 0.2 ug/L < 0.2 0.2 ug/L o-Xylene < 0.3 0.3 p&m-Xylene ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 1 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005
Original Date Reported: 16-JUN-2005

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514041 | Receiving Comments: -Sampling Point Coll Date Coll Time Field No 0840 03-JUN-2005 w22 Trip Blank Field Blank 200514052 200514044 

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

168 VOCs in Water by GC/MS

Tenative detection of indane at 2 ug/L (concentration estimated).

4-Bromofluorobenzene (surrogate)	97.0	70-130	%
1,2-Dichlorobenzene-D4 (surrogate)	129	70-130	%
Acetone	< 20	20	ug/L
Allyl chloride	< 0.5	0.5	ug/L
Benzene	0.8	0.2	ug/L
Bromobenzene	< 0.2	0.2	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.2	0.2	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 1.0	1.0	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

07-JUN-05

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 2 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name Sampled By		
-	EDI	NA WELL EVALUATION	mathew beckman	
nple No: 200	<b>514041</b> Recei	ving Comments: -		
Coll Date	Coll Time	Field No	Sampling Point	
03-JUN-2005	0840	w22	-	
Trip Blank	Field Blan	k		

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date
Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)

07-JUN-05

Tenative detection of indane at 2 ug/L (concentration estimated).

Carbon tetrachloride < 0.2 0.2 ug/L

Chlorobenzene < 0.2 0.2 ug/L

Chlorodibromomethane < 0.5 0.5 ug/L

Chlorobenzene ug/L Chlorodibromomethane < 0.5 0.5 ug/L Chloroethane 0.5 0.5 ug/L Chloroform 0.1 0.1 ug/L 1.0 1.0 ug/L Chloromethane 2-Chlorotoluene < 0.5 0.5 ug/L

4 Ch lawaha luama	<	0.5	0.5	110 /T
4-Chlorotoluene	<	0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBC	?) <	2.0	2.0	ug/L
1,2-Dibromoethane (EDB)	<	0.5	0.5	ug/L
Dibromomethane	<	0.5	0.5	ug/L
1,2-Dichlorobenzene	<	0.2	0.2	ug/L
1,3-Dichlorobenzene	<	0.2	0.2	ug/L
1,4-Dichlorobenzene	<	0.2	0.2	ug/L
Dichlorodifluoromethane	<	1.0	1.0	ug/L
1,1-Dichloroethane	<	0.2	0.2	ug/L
1,2-Dichloroethane	<	0.2	0.2	ug/L
1,1-Dichloroethene	<	0.5	0.5	ug/L
cis-1,2-Dichloroethene	<	0.2	0.2	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 3 of 46

07-JUN-05

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

-	EDINA	WELL EVALUATION	
		. WEDE EVABORITOR	mathew beckman
Sample No: 200	<b>514041</b> Receivi	ng Comments: -	· · · · · · · · · · · · · · · · · · ·
Coll Date	Coll Time F	ield No	Sampling Point
03-JUN-2005	0840	w22	-
Trip Blank	Field Blank		
200514052	200514044		

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic R	sults are indicated by	7 BOLD.		

468 VOCs	in	Water	by	GC/MS	(Cont.)						
			_								

Tenative detection of indane at 2 ug/L (concentration estimated).

trans-1,2-Dichloroethene	<	0.1	0.1	ug/L
Dichlorofluoromethane	<	0.5	0.5	ug/L
1,2-Dichloropropane	<	0.2	0.2	ug/L
1,3-Dichloropropane	<	0.2	0.2	ug/L
2,2-Dichloropropane	<	0.5	0.5	ug/L
1,1-Dichloropropene	<	0.2	0.2	ug/L
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L
Ethylbenzene		0.6	0.5	ug/L
Ethyl ether	<	2.0	2.0	ug/L
Hexachlorobutadiene	<	1.0	1.0	ug/L
Isopropylbenzene	<	0.5	0.5	ug/L
p-Isopropyltoluene	<	0.5	0.5	ug/L

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	2.7	1.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 4 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005
Original Date Reported: 16-JUN-2005

original bacc Reported. 10 con-2005

Project Name Site ID Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514041 | Receiving Comments: -Coll Date Coll Time Field No Sampling Point 03-JUN-2005 0840 w22 Trip Blank Field Blank 200514052 200514044 

Unit: ORGANIC CHEMISTRY Reviewe

Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)

07-JUN-05

Tenative detection of indane at 2 ug/L (concentration estimated).

n-Propylbenzene

< 0.5

0.5 ι

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

 Styrene
 < 0.5</td>
 0.5
 ug/L

 1,1,1,2-Tetrachloroethane
 < 0.2</td>
 0.2
 ug/L

 1,1,2,2-Tetrachloroethane
 < 0.2</td>
 0.2
 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 0.2	0.2	ug/L
< 10	10	ug/L
4.3	0.5	ug/L
< 1.0	1.0	ug/L
< 0.5	0.5	ug/L
< 0.2	0.2	ug/L
< 0.2	0.2	ug/L
	< 10 4.3 < 1.0 < 0.5 < 0.2	< 10 10 4.3 0.5 < 1.0 1.0 < 0.5 < 0.2 0.2

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Trichloroethene (TCE) < 0.1 ug/L
Trichlorofluoromethane < 0.5 0.5 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 5 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Na			Sampled	
-	EDI	NA WELL EVAI	LUATION	m	athew becl	kman
Sample No: 200	<b>9514041</b> Recei	ving Commen	ts: -			
Coll Date 03-JUN-2005	Coll Time 0840	Field No		Samplin	ng Point -	
Trip Blank	Field Blan	k				
200514052	200514044					
*****	****	******	MDIE PESIITS	******	*****	****
Unit: ORGANIC	CHEMISTRY	Reviewe	ed By <b>PDS</b> on	16-JUN-05		
					_	
			Result	Rept Level	Units	Analysis Date
Note: Positiv	e Organic Res	ults are in	dicated by B	OLD.		
168 VOCs in Water b	oy GC/MS (C	ont.)				07-JUN-05
Tenative d	etection of in	dane at 2 ug.	/L (concentra	tion estimated	d).	
1,2,3-Trichlorop	propane		< 0.5	0.5	ug/L	
1,1,2-Trichlorot	trifluoroethane	•	< 0.2	0.2	ug/L	
1,2,4-Trimethyll	penzene		< 0.5	0.5	ug/L	
The spike re	coveries for t	his target a	nalyte did no	ot meet the QC	acceptanc	e criteria
in the MS/MS	D. Since the	recoveries s	howed a posit	ive bias and	the target	analyte
was not dete	cted in the sa	umple, the da	tum was accep	oted without q	ualificati	on.
1,3,5-Trimethyl			< 0.5	0.5	ug/L	
				ot meet the QC		
			=	ive bias and	_	-
	cted in the sa	umple, the da		ted without q	ualificati	on.
Vinyl chloride			< 0.2	0.2	ug/L	
o-Xylene			0.4	0.2	ug/L	
p&m-Xylene			0.3	0.3	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005 Request Page: 6 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
Sample No: 200	0514042 Receiv	ving Comments: -	
Coll Date 03-JUN-2005	Coll Time 0930	Field Now9	Sampling Point -
Trip Blank	Field Blank	<u> </u>	
200514052	200514044		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	MODULE	MODO DOVOE	OHILCB	
Note: Positive Organic Results are	indicated by	BOLD.		
468 VOCs in Water by GC/MS				07-JUN-05
4-Bromofluorobenzene (surrogate)	103	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)	119	70-130	%	
Acetone	< 20	20	ug/L	
Peak present below report level				
Allyl chloride	< 0.5	0.5	ug/L	
Peak present below report level				
Benzene	14	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	
Peak present below report level				

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. The sample result should be considered as estimated.

< 0.5 0.5 ug/L sec-Butylbenzene

Peak present below report level

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. The sample result should be considered as estimated.

Result Rept Level Units Analysis Date

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005
Request Page: 7 of 46

Samples: 200514041 - 200514049

1,4-Dichlorobenzene

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project	Name		Sampled	Ву
~	EDINA WELL	EVALUATION	n	athew beck	man
Sample No: 20051	4042 Receiving Com	ments: -			
Coll Date C	oll Time Field No	_	Sampli	ng Point	
03-JUN-2005	0930 w9			₩	
Trip Blank	Field Blank				
200514052	200514044				
******	******	SAMPLE RESULT	S ********	*****	* * * * * * * *
Unit: ORGANIC C	HEMISTRY Revi	lewed By <b>PDS</b> o	n <b>16-JUN-05</b>		
		Result	Rept Level	Units	Analysis Date
Note: Positive	Organic Results are	indicated by	BOLD.		_
60 HOCa in Water has	GC/MS (Cont.)				07 TUNI 05
68 VOCs in Water by ( tert-Butylbenzene	GC/MS (COIIC.)	< 0.5	0.5	ug/L	07-JUN-05
	torios for this targe			-	a amitamia
	veries for this targe Since the recoverie				
	ed in the sample, the				
Carbon tetrachloric		< 0.2	epted without g	ug/L	511.
Chlorobenzene	uc	< 0.2	0.2	ug/L ug/L	
Chlorodibromometha	ne	< 0.5	0.5	ug/L	
Chloroethane		0.5	0.5	ug/L	
Chloroform		0.1	0.1	ug/L	
Chloromethane		< 1.0	1.0	ug/L	
2-Chlorotoluene		< 0.5	0.5	ug/L	
The spike recov	veries for this targe	t analyte did :	not meet the OC	acceptance	e criteria
	Since the recoverie				
	ed in the sample, the				
4-Chlorotoluene	<u> </u>	< 0.5	0.5	ug/L	
Peak present be	elow report level		• • •	~g, ~	
1,2-Dibromo-3-chlor	-	< 2.0	2.0	ug/L	
	elow report level	~ 2.0	2.0	ug/ n	
1,2-Dibromoethane	~	< 0.5	Λ Ε	1107 / T	
Dibromomethane	( מענו		0.5	ug/L	
1,2-Dichlorobenzene	<b>.</b>		0.5	ug/L	
1,3-Dichlorobenzene		< 0.2	0.2	ug/L	
r, 3-Dichitoropenzene	=	< 0.2	0.2	ug/L	

< 0.2

ug/L

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005 Request Page: 8 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	N mathew beckman
imple No: 200	<b>514042</b> Recei	ving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
	0020	0	
03-JUN-2005	0930	w9	<del>-</del>
03-JUN-2005 Trip Blank	Field Blan		<del>-</del>

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organic Results	are indicat	ed by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)					07-JUN-05
Dichlorodifluoromethane	<	1.0	1.0	$\mathtt{ug}/\mathtt{L}$	
1,1-Dichloroethane	<	0.2	0.2	ug/L	
1,2-Dichloroethane	<	0.2	0.2	ug/L	
1,1-Dichloroethene	<	0.5	0.5	ug/L	
cis-1,2-Dichloroethene	<	0.2	0.2	ug/L	
trans-1,2-Dichloroethene	<	0.1	0.1	ug/L	
Dichlorofluoromethane	<	0.5	0.5	ug/L	
Peak present below report level					
1,2-Dichloropropane	<	0.2	0.2	ug/L	
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene		16	0.5	ug/L	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	ug/L	
Isopropylbenzene		2.9	0.5	ug/L	
p-Isopropyltoluene	<	0.5	0.5	ug/L	

Peak present below report level

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. The sample result should be considered as estimated.

< 0.5 0.5 ug/L Methylene chloride

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 9 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	F	Project Name		Sampled By		
-	EDINA	WELL EVALUATION	n	mathew bec	cman	
Sample No: 200	<b>514042</b> Receivi	ng Comments: -				
Coll Date	Coll Time F:	ield No	Sampli	ng Point		
03-JUN-2005	0930	w9		-		
Trip Blank	Field Blank					
200514052	200514044					
*****	******	****** SAMPLE RESU	·ጥሮ ********	******	*****	
Unit: ORGANIC	CHEMISTRY	Reviewed By PDS	on <b>16-JUN-05</b>			
		-	_			
		Result	Rept Level	Units	Analysis Date	
Note: Positiv	e Organic Resul	ts are indicated by	BOLD.			
468 VOCs in Water b	y GC/MS (Con	t.)			07-JUN-05	
Methyl ethyl ket	cone (MEK)	< 10	10	ug/L		
Methyl isobutyl	ketone (MIBK)	< 5.0	5.0	ug/L		
Methyl tertiary	butyl ether (MTB	E) < 2.0	2.0	ug/L		
Peak present	below report le	evel				
Naphthalene	•	660	50	ug/L		
Report level	was changed due	to sample dilution.		_		
n-Propylbenzene	·····	0.8	0.5	ug/L		
<del></del>	coveries for thi	s target analyte did		•	e criteria	
		esult should be cons			0 04100114	
Styrene		0.9	0.5	ug/L		
1,1,1,2-Tetrachl	oroethane	< 0.2	0.2	ug/L		
1,1,2,2-Tetrachl		< 0.2	0.2	ug/L		
		s target analyte did		3	e criteria	
		coveries showed a po				
		le, the datum was ac				
Tetrachloroethen		< 0.2	0.2		011.	
Tetrahydrofuran		< 10	10	ug/L ug/L		
<del>-</del>			10	ug/L		
Toluene	below report le		A 5			
		1.2	0.5	ug/L		
1,2,3-Trichlorob		< 1.0	1.0	ug/L		
1,2,4-Trichlorob		< 0.5	0.5	ug/L		
1,1,1-Trichloroe	tnane	< 0.2	0.2	ug/L		

Amended Report - Client Copy - Report Of Analytical Results

Program: PL

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005 Request Page: 10 of 46 Samples: 200514041 - 200514049 Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005 Project Name Site ID Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514042 Receiving Comments: -Sampling Point Coll Date Coll Time Field No 03-JUN-2005 0930 Trip Blank Field Blank 200514052 200514044 Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05 Rept Level Units Analysis Date Result Note: Positive Organic Results are indicated by BOLD. (Cont.) 07-JUN-05 468 VOCs in Water by GC/MS < 0.2 0.2 1,1,2-Trichloroethane ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. Trichloroethene (TCE) < 0.1 0.1 ua/L < 0.5 0.5 ug/L Trichlorofluoromethane 1,2,3-Trichloropropane < 0.5 0.5 ug/L Peak present below report level 1,1,2-Trichlorotrifluoroethane < 0.2 0.2 uq/L 14 0.5 ug/L 1,2,4-Trimethylbenzene The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. The sample result should be considered as estimated. 2.0 1,3,5-Trimethylbenzene The spike recoveries for this target analyte did not meet the QC acceptance criteria in the  ${\rm MS/MSD}$ . The sample result should be considered as estimated. < 0.2 0.2 Vinvl chloride 0.2 ug/L 17 o-Xylene 11 0.3 p&m-Xylene ug/L

Date Received: 06-JUN-2005

Amended Report - Client Copy - Report Of Analytical Results

Date Received: 06-JUN-2005 Program: PL Date Generated: 24-JUN-2005

Request Page: 11 of 46

200514041 - 200514049

Program Name: MPCA-32 METRO MERLA-SF

Samples:

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATIO	N mathew beckman
ple No: 200	0514043 Recei	ving Comments: •	-
Coll Date	Coll Time	Field No	Sampling Point
03-JUN-2005	1050	w16	-
	Field Blank	z.	
Trip Blank	Field Blam	· _	

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Note: Positive Organic Results are	Resul indicated	· · · · · · · · · · · · · · · · · · ·	Units	Analysis Date
468 VOCs in Water by GC/MS				08-JUN-05
4-Bromofluorobenzene (surrogate)	95.	5 70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)	123	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.	5 0.5	ug/L	
Benzene	< 0.	2 0.2	ug/L	
Bromobenzene	< 0.	0.2	ug/L	
Bromochloromethane	< 0.	5 0.5	ug/L	
Bromodichloromethane	< 0.3	0.2	ug/L	
Bromoform	< 0.	0.5	ug/L	
Bromomethane	< 1.	1.0	ug/L	
n-Butylbenzene	< 0.	5 0.5	ug/L	
The spike recoveries for this target	analyte d	id not meet the QC	C acceptance	criteria

in the  ${\it MS/MSD}$ . Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. sec-Butylbenzene

< 0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2

0.5

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 12 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name		Sampled	l By
-	EDI	NA WELL EVALUATION	I	mathew bec	kman
Sample No: 2005	514043 Rece	iving Comments: -			
Coll Date	Coll Time	Field No	Sampli	ng Point	
03-JUN-2005	1050	w16		_	
Trip Blank	Field Blan	k			
200514052	200514044				
	CHEMISTRY	********* SAMPLE RES		******	****
		Resul	t Rept Level	Units	Analysis Date
Note: Positive	Organic Re	sults are indicated	by BOLD.		
8 VOCs in Water by	GC/MS (C	ont.)			08-JUN-05
Chlorobenzene		< 0.2	0.2	ug/L	
Chlorodibromometh	hane	< 0.5	0.5	ug/L	
Chloroethane		< 0.5	0.5	ug/L	
Chloroform		< 0.1	0.1	ug/L	
Chloromethane		< 1.0	1.0	ug/L	
2-Chlorotoluene		< 0.5	0.5	ug/L	
The spike red	coveries for	this target analyte d	id not meet the QC	C acceptanc	e criteria
in the MS/MSD	). Since the	recoveries showed a	positive bias and	the target	analyte
was not detec	ted in the s	ample, the datum was	accepted without	qualificati	on.
4-Chlorotoluene		< 0.5	0.5	ug/L	
1,2-Dibromo-3-chl	loropropane (I	OBCP) < 2.0	2.0	ug/L	
1,2-Dibromoethane	e (EDB)	< 0.5	0.5	ug/L	
Dibromomethane		< 0.5	0.5	ug/L	
1,2-Dichlorobenze	ene	< 0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
1,3-Dichlorobenze	ene	< 0.2	0.2	ug/L	
1,4-Dichlorobenze	ene	< 0.2	0.2	ug/L	
I, T DICITION CHE				1107 / T	
Dichlorodifluoron		< 1.0	1.0	ug/L	
•	methane	< 1.0 < 0.2		ug/L ug/L	
Dichlorodifluoron	nethane ne	< 0.2 < 0.2	0.2	_	
Dichlorodifluorom	methane ne ne	< 0.2	0.2 0.2 0.5	ug/L	
Dichlorodifluorom 1,1-Dichloroethar 1,2-Dichloroethar	methane ne ne ne	< 0.2 < 0.2	0.2 0.2 0.5	ug/L ug/L	
Dichlorodifluorom 1,1-Dichloroethar 1,2-Dichloroethar 1,1-Dichloroether	methane ne ne ne ethene	< 0.2 < 0.2 < 0.5	0.2 0.2 0.5 0.5 0.2	ug/L ug/L ug/L	
Dichlorodifluoron 1,1-Dichloroethar 1,2-Dichloroethar 1,1-Dichloroether cis-1,2-Dichloroe	methane ne ne ne ethene coethene	< 0.2 < 0.2 < 0.5 < 0.2	0.2 0.2 0.5 0.5 0.2	ug/L ug/L ug/L ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 13 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project N	Name	Sampled By
-	EDI	NA WELL EV	ALUATION	mathew beckman
mple No: 200	<b>514043</b> Recei	iving Comme	ents: -	
Coll Date	Coll Time	Field No		Sampling Point
03-JUN-2005	1050	w16		-
Trip Blank	Field Blan	k		
TITE DIGHT				

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Note: Positive Organic Results are i		ult ed by B	Rept Level	Units	Analysis Date
468 VOCs in Water by GC/MS (Cont.)					08-JUN-05
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene	<	0.5	0.5	ug/L	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	ug/L	
Isopropylbenzene	<	0.5	0.5	ug/L	
p-Isopropyltoluene	<	0.5	0.5	ug/L	
The spike recoveries for this target in the MS/MSD. Since the recoveries					

was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	$\mathtt{ug}/\mathtt{L}$
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	< 1.0	1.0	ug/L
Peak present below report level			
n-Propylbenzene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 14 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

0.5

ug/L

Site ID		Project Name	Sampled By	
-	ED:	INA WELL EVALUATION	mathew beckman	
nple No: 200	<b>)514043</b> Rece	iving Comments: -		
Coll Date	Coll Time	Field No	Sampling Point	
03-JUN-2005	1050	w16	<del>-</del>	
	Field Blar	nk		
Trip Blank	ricia biai			

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

< 0.5

468 VOCs in Water by GC/MS	(Cont.)

Styrene

08-JUN-05

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Tetrachloroethene	<	0.2	0.2	ug/L
Tetrahydrofuran (THF)	<	10	10	ug/L
Toluene		1.1	0.5	ug/L
1,2,3-Trichlorobenzene	<	1.0	1.0	ug/L
1,2,4-Trichlorobenzene	<	0.5	0.5	ug/L
1,1,1-Trichloroethane	<	0.2	0.2	ug/L
1,1,2-Trichloroethane	<	0.2	0.2	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Trichloroethene (TCE)	<	0.1	0.1	ug/L
Trichlorofluoromethane	<	0.5	0.5	ug/L
1,2,3-Trichloropropane	<	0.5	0.5	ug/L
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005
Request Page: 15 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Project Name Sampled By Site ID EDINA WELL EVALUATION mathew beckman Sample No: 200514043 | Receiving Comments: -Coll Date Coll Time Field No Sampling Point 03-JUN-2005 1050 w16 Trip Blank Field Blank 200514052 200514044 Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05 Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 08-JUN-05 < 0.5 1,2,4-Trimethylbenzene 0.5 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. < 0.5 1,3,5-Trimethylbenzene 0.5 The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. Vinyl chloride < 0.2 0.2 o-Xylene < 0.2 0.2 uq/L p&m-Xylene < 0.3 0.3 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 16 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Rept Level Units

Analysis Date

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EI	DINA WELL EVALUATION	mathew beckman
mple No: 200	)514044 Rece	eiving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
03-JUN-2005	1100	field blan	-
	Field Bla	ink	
Trip Blank			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result

		-		-
Note: Positive Organic Results ar	e indicated by BC	DLD.		
468 VOCs in Water by GC/MS				08-JUN-05
4-Bromofluorobenzene (surrogate)	93.1	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)	122	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	< 0.2	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 17 of 46

Samples: 200514041 - 200514049

4

Dichlorofluoromethane

1,2-Dichloropropane

Date Reported: 24-JUN-2005
Original Date Reported: 16-JUN-2005

Site ID	Project Name		Sampled	Ву
- E	DINA WELL EVALUATION	m	athew beck	man
Sample No: <b>200514044</b> Rec	ceiving Comments: -			
Coll Date Coll Time	Field No	Sampli	ng Point	
03-JUN-2005 1100	field blan		<u>-</u>	
Trip Blank Field Bl	ank			
200514052 2005140	<del></del>			
**********	****** SAMPLE RESU	JLTS ********	******	*****
Unit: ORGANIC CHEMISTRY	Reviewed By <b>PDS</b>	on <b>16-JUN-05</b>		
	Result	Rept Level	Units	Analysis Date
Note: Positive Organic P			011205	
8 VOCs in Water by GC/MS	(Cont.)			08-JUN-05
Chlorobenzene	< 0.2	0.2	ug/L	09-0011-02
Chlorodibromomethane	< 0.5	0.5	ug/L	
Chloroethane	< 0.5	0.5	ug/L	
Chloroform	0.1	0.1	ug/L	
Chloromethane	< 1.0	1.0	ug/L	
2-Chlorotoluene	< 0.5	0.5	ug/L	
	r this target analyte di		-	o dritorio
	ne recoveries showed a p			
	sample, the datum was a			
4-Chlorotoluene	< 0.5	0.5	ug/L	JII .
1,2-Dibromo-3-chloropropane		2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	ug/L	
1.2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	< 0.2	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	ug/L	
cis-1,2-Dichloroethene	< 0.2	0.2	ug/L ug/L	
trans-1,2-Dichloroethene	< 0.1	0.2	_	
crans-1,2-brenioroechene	V 0.1	0.1	ug/L	

< 0.5

< 0.2

ug/L

ug/L

0.5

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 18 of 46

Samples: 200514041 - 200514049 Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project Name	Sampled By
-	EDINA WELL EVALUA	TION mathew beckman
Sample No: 20051	4044 Receiving Comments:	-
Coll Date C	oll Time Field No	Sampling Point
03-JIIN-2005	1100 field blan	_

Trip Blank Field Blank
200514052 200514044

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

150 mg/mg / / / / / / / / / / / / / / / / /					00 7111 05
468 VOCs in Water by GC/MS (Cont.)					08-JUN-05
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene	<	0.5	0.5	ug/L	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	ug/L	
Isopropylbenzene	<	0.5	0.5	ug/L	
p-Isopropyltoluene	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$
Methyl ethyl ketone (MEK)	< 10	10	$\mathtt{ug}/\mathtt{L}$
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	< 1.0	1.0	ug/L
n-Propylbenzene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene < 0.5 0.5 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 19 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

	Project Name		Project Name		Sampled By		
-	EI	DINA WELL EVALUATION	mathew beckman				
ple No: 20051	14044 Rece	eiving Comments: -					
Coll Date C	Coll Time	Field No	Sampling Point				
03-JUN-2005	1100	field blan	-				
Trip Blank	Field Bla	nk					
200514052	20051404	4					

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS	(Cont.)					08-JUN-05
1,1,1,2-Tetrachloroethane		<	0.2	0.2	ug/L	
1,1,2,2-Tetrachloroethane		<	0.2	0.2	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Tetrachloroethene	< 0.2	0.2	ug/L
Tetrahydrofuran (THF)	< 10	10	ug/L
Toluene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 1.0	1.0	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.2	0.2	ug/L
1,1,2-Trichloroethane	< 0.2	0.2	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

<	0.1	0.1	${\tt ug/L}$
<	0.5	0.5	ug/L
<	0.5	0.5	ug/L
<	0.2	0.2	ug/L
<	0.5	0.5	ug/L
	< < <	< 0.1 < 0.5 < 0.5 < 0.2 < 0.5	< 0.5 0.5 < 0.5 < 0.2 0.2

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 20 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Unit: ORGANIC CHEMISTRY

Reviewed By  ${\tt PDS}$  on  ${\tt 16-JUN-05}$ 

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)

08-JUN-05

1,3,5-Trimethylbenzene

< 0.5

0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005 Request Page: 21 of 46 Samples: 200514041 - 200514049 Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005 Project Name Site ID Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514045 | Receiving Comments: -Coll Date Coll Time Field No Sampling Point 03-JUN-2005 1150 w10 Trip Blank Field Blank 200514052 200514044 Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05 Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS 08-JUN-05 4-Bromofluorobenzene (surrogate) 93.8 70-130 1,2-Dichlorobenzene-D4 (surrogate) 122 70-130 % Acetone < 20 20 ua/L Allyl chloride < 0.5 0.5 ug/L < 0.2 Benzene 0.2 ug/L Bromobenzene 0.2 0.2 ug/L Bromochloromethane < 0.5 0.5 ug/L Bromodichloromethane < 0.2 0.2 uq/L Bromoform < 0.5 0.5 ug/L Bromomethane < 1.0 1.0 ug/L n-Butylbenzene < 0.5 0.5 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. sec-Butylbenzene < 0.5 0.5 The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 0.5 The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 22 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
mple No: 200	514045 Recei	ving Comments: -	
Coll Date	Coll_Time	Field No	Sampling Point
03-JUN-2005	1150	w10	-
	Field Blan	k	
Trip Blank	ricia pian		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

OHIC: ORGANIC CHEMISIKI	Keviewed By Pr	s on 16-JUN-05		
	Resul	t Rept Level	l Units	Analysis Date
Note: Positive Organic Results	are indicated	by BOLD.		
468 VOCs in Water by GC/MS (Cont.)				08-JUN-05
Chlorobenzene	< 0.	2 0.2	ug/L	
Chlorodibromomethane	< 0.	5 0.5	ug/L	
Chloroethane	< 0.	5 0.5	ug/L	
Chloroform	< 0.	1 0.1	ug/L	
Peak present below report level	l			
Chloromethane	< 1.	0 1.0	ug/L	
2-Chlorotoluene	< 0.	5 0.5	ug/L	
The spike recoveries for this to in the MS/MSD. Since the reco	-		_	
was not detected in the sample		-	•	<del>-</del>
4-Chlorotoluene	< 0.		ug/L	.011.
1,2-Dibromo-3-chloropropane (DBCP)	< 2.		ug/L	
1,2-Dibromoethane (EDB)	< 0.		ug/L	
Dibromomethane	< 0.		ug/L	
1,2-Dichlorobenzene	< 0.	2 0.2	ug/L	
1.3-Dichlorobenzene	< 0.	2 0.2	ug/L	
1,4-Dichlorobenzene	< 0.	2 0.2	ug/L	
Dichlorodifluoromethane	< 1.	0 1.0	ug/L	
1,1-Dichloroethane	< 0.	2 0.2	ug/L	
1,2-Dichloroethane	< 0.	2 0.2	ug/L	
1,1-Dichloroethene	< 0.	5 0.5	ug/L	
cis-1,2-Dichloroethene	< 0.	2 0.2	ug/L	
trans-1,2-Dichloroethene	< 0.	1 0.1	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Project Name

Request Page: 23 of 46

Sampled By

Samples: 200514041 - 200514049

Site ID

Hexachlorobutadiene

Isopropylbenzene

p-Isopropyltoluene

Date Reported: 24-JUN-2005
Original Date Reported: 16-JUN-2005

-	EDIN	NA WELL EVALUATION	mathew beckman
Sample No: 200	<b>514045</b> Receiv	ring Comments: -	
Coll Date	Coll Time 1150	Field No w10	Sampling Point -
Trip Blank 200514052	Field Blank	<u>:</u>	

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 08-JUN-05 Dichlorofluoromethane < 0.5 0.5 ug/L 1,2-Dichloropropane < 0.2 0.2 ug/L 1,3-Dichloropropane < 0.2 0.2 ug/L 2,2-Dichloropropane < 0.5 0.5 ug/L 1,1-Dichloropropene < 0.2 0.2 ug/L cis-1,3-Dichloropropene < 0.2 0.2 ug/L trans-1,3-Dichloropropene 0.2 0.2 ug/L Ethylbenzene < 0.5 0.5 ug/L Ethyl ether < 2.0 2.0 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 1.0

< 0.5

< 0.5

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	< 1.0	1.0	ug/L

Peak present below report level

1.0

0.5

0.5

uq/L

ug/L

ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005 Request Page: 24 200514041 - 200514049 Samples: Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005 Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman 200514045 Receiving Comments: -Sample No: Sampling Point Coll Date Coll Time Field No 03-JUN-2005 1150 Trip Blank Field Blank 200514052 200514044 Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05 Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD. 08-JUN-05 468 VOCs in Water by GC/MS (Cont.) n-Propylbenzene < 0.5 0.5 The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. < 0.5 0.5 Styrene 1,1,1,2-Tetrachloroethane 0.2 0.2 < 0.2 0.2 ug/L 1,1,2,2-Tetrachloroethane The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. < 0.2 0.2 Tetrachloroethene 10 < 10 Tetrahydrofuran (THF) ug/L < 0.5 0.5 Toluene ug/L Peak present below report level < 1.0 1.0 1,2,3-Trichlorobenzene ua/L 0.5 1,2,4-Trichlorobenzene < 0.5 ug/L 1,1,1-Trichloroethane < 0.2 0.2 ug/L < 0.2 0.2 ug/L 1,1,2-Trichloroethane The spike recoveries for this target analyte did not meet the QC acceptance criteria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Trichloroethene (TCE) < 0.1 ug/L Trichlorofluoromethane < 0.5 0.5 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 25 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

			-		
Site ID	Project Nam	ne		Sampled	Ву
<u>-</u>	EDINA WELL EVAL	UATION	ma	mathew beckman	
Sample No: 200514045	Receiving Comment	s: -			
Coll Date Coll T	ime_ Field No		Samplin	g Point	
03-JUN-2005 115	0 w10			-	
Trip Blank Field	Blank				
200514052 2005	14044				
********	****** SAM	IPLE RESULTS	*****	******	****
Unit: ORGANIC CHEMIST					
Unit: ORGANIC CHEMIST	c Results are ind	Result icated by BO	Rept Level	Units	Analysis Date
	c Results are ind		-	Units	_
Note: Positive Organi			-	Units ug/L	Analysis Date
Note: Positive Organi	(Cont.)	icated by BO	DLD.		-
Note: Positive Organi 68 VOCs in Water by GC/MS 1,2,3-Trichloropropane	(Cont.)	cicated by BC	0.5	ug/L	_
Note: Positive Organi 68 VOCs in Water by GC/MS 1,2,3-Trichloropropane 1,1,2-Trichlorotrifluoro	(Cont.) ethane for this target are the recoveries sh	<pre></pre>	0.5 0.2 0.5 t meet the QC ive bias and t	ug/L ug/L ug/L acceptance the target	08-JUN-05 e criteria analyte
Note: Positive Organi 68 VOCs in Water by GC/MS 1,2,3-Trichloropropane 1,1,2-Trichlorotrifluoro 1,2,4-Trimethylbenzene The spike recoveries in the MS/MSD. Since	(Cont.) ethane for this target are the recoveries sh	<pre></pre>	0.5 0.2 0.5 t meet the QC ive bias and t	ug/L ug/L ug/L acceptance the target	08-JUN-05 e criteria analyte
Note: Positive Organi 68 VOCs in Water by GC/MS 1,2,3-Trichloropropane 1,1,2-Trichlorotrifluoro 1,2,4-Trimethylbenzene The spike recoveries in the MS/MSD. Since was not detected in 1,3,5-Trimethylbenzene The spike recoveries in the MS/MSD. Since	(Cont.) ethane for this target are the recoveries shapther the date for this target are the recoveries shapther the recoveries shapther the recoveries shapther than the recoveries shape the recoveries shapther than the recoveries shape the r	<pre>. cated by BC</pre>	0.5 0.2 0.5 t meet the QC ive bias and t ted without qu 0.5 t meet the QC ive bias and t	ug/L ug/L ug/L acceptance the target ug/L acceptance	08-JUN-05 c criteria analyte on. c criteria analyte
Note: Positive Organi 68 VOCs in Water by GC/MS 1,2,3-Trichloropropane 1,1,2-Trichlorotrifluoro 1,2,4-Trimethylbenzene The spike recoveries in the MS/MSD. Sinc was not detected in 1,3,5-Trimethylbenzene The spike recoveries	(Cont.) ethane for this target are the recoveries shapther the date for this target are the recoveries shapther the recoveries shapther the recoveries shapther than the recoveries shape the recoveries shapther than the recoveries shape the r	<pre>. cated by BC</pre>	0.5 0.2 0.5 t meet the QC ive bias and t ted without qu 0.5 t meet the QC ive bias and t	ug/L ug/L ug/L acceptance the target ug/L acceptance	08-JUN-05 c criteria analyte on. c criteria analyte
Note: Positive Organi  68 VOCs in Water by GC/MS 1,2,3-Trichloropropane 1,1,2-Trichlorotrifluoro 1,2,4-Trimethylbenzene The spike recoveries in the MS/MSD. Sinct was not detected in 1,3,5-Trimethylbenzene The spike recoveries in the MS/MSD. Sinct was not detected in	(Cont.) ethane for this target are the recoveries shapther the date for this target are the recoveries shapther the recoveries shapther the recoveries shapther than the recoveries shape the recoveries shapther than the recoveries shape the r	<pre></pre>	0.5 0.2 0.5 t meet the QC ive bias and t ted without qu 0.5 t meet the QC ive bias and t	ug/L ug/L ug/L acceptance the target ug/L acceptance the target	08-JUN-05 c criteria analyte on. c criteria analyte

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 26 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16~JUN-2005

Site ID		Project Name	Sampled By
-	EDIN	A WELL EVALUATION	mathew beckman
mple No: 200	<b>0514046</b> Receiv	ing Comments: -	
Coll Date	Coll Time I	Field No	Sampling Point
Coll Date 03-JUN-2005	Coll Time I	Field No w21	Sampling Point -
		w21	

Unit: ORGANIC CHEMISTRY F

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by I	BOLD.		
468 VOCs in Water by GC/MS				08-JUN-05
4-Bromofluorobenzene (surrogate)	96.1	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)	121	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	< 0.2	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	
The spike recoveries for this targe	et analyte did n	ot meet the OC	: acceptanc	e criteria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 27 of 46

Samples: 200514041 - 200514049

1,2-Dichloropropane

Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005

Site ID	Project	Name		Sampled	l Ву
-	EDINA WELL	EVALUATION	n	mathew beckman	
Sample No: 200	514046 Receiving Com	ments: -	<u> </u>		
Coll Date	Coll_Time_ Field No	o	Sampli	ng Point	
03-JUN-2005	1230 w21			-	
Trip Blank	Field Blank				
200514052	200514044				
*****	******	· SAMPLE RESULT	PS ********	*****	****
Onit: ORGANIC	CHEMISTRY Rev	iewed By <b>PDS</b> o			
		Result	Rept Level	Units	Analysis Date
Note: Positiv	e Organic Results are	indicated by	BOLD.		
VOCs in Water b	y GC/MS (Cont.)				08-JUN-05
Chlorobenzene		< 0.2	0.2	ug/L	
Chlorodibromomet	chane	< 0.5	0.5	ug/L	
Chloroethane		< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
Chloroform		< 0.1	0.1	ug/L	
Chloromethane		< 1.0	1.0	ug/L	
2-Chlorotoluene		< 0.5	0.5	ug/L	
The spike re	coveries for this targe	et analyte did	not meet the QC	acceptanc	e criteria
in the MS/MS	D. Since the recoverie	es showed a pos	itive bias and	the target	analyte
was not dete	cted in the sample, the	e datum was acc	epted without q	qualificati	on.
4-Chlorotoluene		< 0.5	0.5	ug/L	
1,2-Dibromo-3-ch	loropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethan	e (EDB)	< 0.5	0.5	ug/L	
Dibromomethane		< 0.5	0.5	ug/L	
1,2-Dichlorobenz	ene	< 0.2	0.2	ug/L	
1,3-Dichlorobenz	ene	< 0.2	0.2	ug/L	
1,4-Dichlorobenz	ene	< 0.2	0.2	ug/L	
Dichlorodifluoro	methane	< 1.0	1.0	ug/L	
1,1-Dichloroetha	ne	< 0.2	0.2	ug/L	
1,2-Dichloroetha	ne	< 0.2	0.2	ug/L	
1,1-Dichloroethe	ne	< 0.5	0.5	ug/L	
cis-1,2-Dichloro	ethene	< 0.2	0.2	ug/L	
trans-1,2-Dichlo	roethene	< 0.1	0.1	ug/L	
Dichlorofluorome	thane	< 0.5	0.5	ug/L	
1 0 0: 1:1:					

< 0.2

ug/L

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 28 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005
Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUA	TION mathew beckman
Sample No: 200	514046 Recei	ving Comments:	<del>-</del>
Coll Date		Field No	Sampling Point
03-JUN-2005	1230	w21	-
Trip Blank	Field Blank	ζ	

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Con	ıt.)				08-JUN-05
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene	<	0.5	0.5	ug/L	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	ug/L	
Isopropylbenzene	<	0.5	0.5	ug/L	
p-Isopropyltoluene	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	< 1.0	1.0	ug/L
n-Propylbenzene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene < 0.5 0.5 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 29 of 46

Samples: 200514041 - 200514049

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,1,2-Trichlorotrifluoroethane

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site II	)	Project Name			Sampled	l Ву
-	EDI	NA WELL EVALUAT	rion	m	athew becl	cman
Sample No:	<b>200514046</b> Recei	ving Comments:	_			
Coll Date	e Coll Time	Field No	_	Samplir	ng Point	
03-JUN-20	05 1230	w21			-	
Trip Blan	nk Field Blan	k.				
20051405	2 200514044	<del></del>				
****	****	****** SAMPL	E RESULT	S *******	******	****
Unit: ORGA	ANIC CHEMISTRY	Reviewed F	3y <b>PDS</b> or	16~JUN-05		
		F	Result	Rept Level	Units	Analysis Date
Note: Posi	tive Organic Res	ults are indica	ated by	BOLD.		<u>-</u>
468 VOCs in Wate	er by GC/MS (C	ont.)				08-JUN-05
	achloroethane	•	< 0.2	0.2	ug/L	00-0014-05
1,1,2,2-Tetr	achloroethane	<	< 0.2	0.2	uq/L	
The spike	e recoveries for t	his target anal	vte did 1	not meet the OC	_	e criteria
	S/MSD. Since the					
	detected in the sa					
Tetrachloroe		<		0.2	ug/L	
Tetrahydrofu	ran (THF)	<	: 10	10	ug/L	
Toluene			0.6	0.5	ug/L	
1,2,3-Trichl	orobenzene	<	1.0	1.0	ug/L	
1,2,4-Trichl	orobenzene	<	0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
1,1,1-Trichl	oroethane	<	0.2	0.2	ug/L	
1,1,2-Trichl	oroethane	<	0.2	0.2	ug/L	
The spike	e recoveries for t	his target analy	yte did r	not meet the QC	acceptance	e criteria
	S/MSD. Since the					
	letected in the sa					
Trichloroeth		<		0.1	ug/L	
Trichloroflu	oromethane	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 0.5

< 0.2

< 0.5

ug/L

ug/L

ug/L

0.5

0.2

0.5

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 30 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Sampled By Site ID Project Name EDINA WELL EVALUATION mathew beckman Sample No: 200514046 Receiving Comments: -Sampling Point Coll Date Coll Time Field No 03-JUN-2005 1230 w21 Trip Blank Field Blank 200514044 200514052 Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Rept Level Units Analysis Date Result

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.) 08-JUN-05

1,3,5-Trimethylbenzene

< 0.5

0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 0.2 Vinyl chloride 0.2 ug/L < 0.2 o-Xylene 0.2 ug/L < 0.3 0.3 ug/L p&m-Xylene

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 31 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	ED	Project Name	Sampled By  Mathew beckman
mple No: 200	<b>514047</b> Rece	iving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
03-JUN-2005	1340	w17	<del>-</del>
Trip Blank	Field Blar	nk	
200514052	200514044	1	
*****	*****	***** SAMPLE R	ESULTS ********
*****	******	******* SAMPLE R	ESULTS ************************************

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date
Note: Positive Organic Results are indicated by BOLD.

4-Bromofluorobenzene (surrogate)	95.6	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)	121	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	< 0.2	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 32 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
nple No: 200	<b>)514047</b> Recei	ving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
03-JUN-2005	1340	w17	-
Trip Blank	Field Blan	k	

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

UNIT: ORGANIC CHEMISTRI	Reviewed By 1	?DS on	16-JUN-05		
	Resu	ılt	Rept Level	Units	Analysis Date
Note: Positive Organic Result	ts are indicated	d by E	BOLD.		
468 VOCs in Water by GC/MS (Cont	.)				08-JUN-05
Chlorobenzene	< (	0.2	0.2	ug/L	
Chlorodibromomethane	< (	0.5	0.5	ug/L	
Chloroethane	< (	0.5	0.5	ug/L	
Chloroform	< (	0.1	0.1	ug/L	
Peak present below report le	vel				
Chloromethane	< 1	L.O	1.0	ug/L	
2-Chlorotoluene	< (	0.5	0.5	ug/L	
The spike recoveries for this	s target analyte	did n	ot meet the QC	acceptan	ce criteria
in the MS/MSD. Since the red	coveries showed	a posi	tive bias and t	he targe	t analyte
was not detected in the samp?	le, the datum was	s acce	pted without qu	alificat	ion.
4-Chlorotoluene	< 0	).5	0.5	ug/L	
1,2-Dibromo-3-chloropropane (DBCF	) < 2	2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0	.5	0.5	ug/L	
Dibromomethane	< 0	).5	0.5	ug/L	
1,2-Dichlorobenzene	< 0	0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0	0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0	0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1	0	1.0	ug/L	
1,1-Dichloroethane	< 0	0.2	0.2	ug/L	
1,2-Dichloroethane	< C	0.2	0.2	ug/L	
1,1-Dichloroethene	< 0	).5	0.5	ug/L	
cis-1,2-Dichloroethene	< 0	0.2	0.2	ug/L	

Peak present below report level

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 33 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

INA WELL EVALUA	
iving Comments:	· —
Field No	Sampling Point
w17	-
nk	
 }	

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Results are	indicat	ed by	BOLD.		
(Cont.)					08-JUN-05
	<	0.1	0.1	ug/L	
	<	0.5	0.5	ug/L	
	<	0.2	0.2	ug/L	
	<	0.2	0.2	ug/L	
	<	0.5	0.5	ug/L	
	<	0.2	0.2	ug/L	
	<	0.2	0.2	ug/L	
	<	0.2	0.2	ug/L	
	<	0.5	0.5	ug/L	
	<	2.0	2.0	ug/L	
	<	1.0	1.0	ug/L	
	<	0.5	0.5	ug/L	
	<	0.5	0.5	ug/L	
	(Cont.)	(Cont.)	(Cont.)  < 0.1 < 0.5 < 0.2 < 0.2 < 0.5 < 0.2 < 0.2 < 0.5 < 0.2 < 1.0 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5 < 0.5	(Cont.)  (Co	(Cont.)  (Co

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	< 1.0	1.0	ug/L

Peak present below report level

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 34 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site_ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
mple No: 200	<b>9514047</b> Recei	ving Comments: -	
Coll Date	Coll_Time	Field No	Sampling Point
03-JUN-2005	1340	w17	-
Trip Blank	Field Blan	k	

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)

08-JUN-05

n-Propylbenzene

< 0.5

0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene	<	0.5	0.5	ug/L
1,1,1,2-Tetrachloroethane	<	0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	<	0.2	0.2	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Tetrachloroethene	<	0.2	0.2	ug/L
Tetrahydrofuran (THF)	<	10	10	ug/L
Toluene		1.1	0.5	ug/L
1,2,3-Trichlorobenzene	<	1.0	1.0	ug/L
1,2,4-Trichlorobenzene	<	0.5	0.5	ug/L
1,1,1-Trichloroethane	<	0.2	0.2	ug/L
1,1,2-Trichloroethane	<	0.2	0.2	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Trichloroethene (TCE)	<	0.1	0.1	ug/L
Trichlorofluoromethane	<	0.5	0.5	ug/L
1,2,3-Trichloropropane	<	0.5	0.5	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005 Request Page: 35 of 46 Samples: 200514041 - 200514049 Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005 Project Name Sampled By Site ID EDINA WELL EVALUATION mathew beckman Sample No: 200514047 Receiving Comments: -Sampling Point Coll Date Coll Time Field No 03-JUN-2005 1340 w17 Trip Blank Field Blank 200514052 200514044 Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05 Rept Level Units Analysis Date Result Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 08-JUN-05 1,1,2-Trichlorotrifluoroethane < 0.2 0.2 ug/L 1,2,4-Trimethylbenzene < 0.5 0.5 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. 1,3,5-Trimethylbenzene < 0.5 0.5 The spike recoveries for this target analyte did not meet the QC acceptance criteria in the  ${\rm MS/MSD}$ . Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. Vinyl chloride < 0.2 0.2 ug/L o-Xylene < 0.2 0.2 ug/L < 0.3 p&m-Xylene 0.3 uq/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 36 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site_ID		Project Name		Project Name		Sampled By
-	EDIN	A WELL EVALU	ATION	mathew beckman		
mple No: 200	<b>514048</b> Receiv	ing Comments	s: -			
Coll Date	Coll Time I	Field No		Sampling Point		
03~JUN-2005	1430	w-18		-		
Trip Blank	Field Blank					
		-				

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS

08-JUN-05

Tenative detection of propane at lug/L and pentane at lug/L (concentrations estimated).

4-Bromofluorobenzene (surrogate)	94.5	70-130	%
1,2-Dichlorobenzene-D4 (surrogate)	125	70-130	%
Acetone	< 20	20	ug/L
Allyl chloride	< 0.5	0.5	ug/L
Benzene	6.1	0.2	ug/L
Bromobenzene	< 0.2	0.2	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.2	0.2	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 1.0	1.0	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 ug/

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 37 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project Na	ame		Sampled	Ву
-	EDINA WELL EVA	LUATION	m	athew beck	man
Sample No: <b>200514</b>	048 Receiving Commer	nts: -	···		· · · · · · · · · · · · · · · · · · ·
Coll Date Co	oll Time Field No		Samplin	ng Point	
03-JUN-2005	1430 w-18			_	
Trip Blank	Field Blank				
200514052	200514044				
*****	*******	AMPLE RESULT	'S ********	******	****
Unit: ORGANIC CE	TEMT CMDV				
ONIC: ORGANIC CA	Review	red By <b>PDS</b> or	16-JUN-05		
		Result	Rept Level	Units	Analysis Date
Note: Positive C	rganic Results are in	dicated by	BOLD.		
468 VOCs in Water by G	C/MS (Cont.)				08-JUN-05
<del>-</del>	ction of propane at lug	r/I and nenta	me at 1 ug/L		08-0011-05
(concentration		J/D and penca	me at 1 ug/b		
tert-Butylbenzene		< 0.5	0.5	ug/L	
The spike recov	eries for this target	analyte did	not meet the QC	acceptance	e criteria
in the MS/MSD.	Since the recoveries	showed a pos	itive bias and	the target	analyte
was not detecte	d in the sample, the d	atum was acc	epted without q	ualificatio	on.
Carbon tetrachlorid	e	< 0.2	0.2	ug/L	
Chlorobenzene		< 0.2	0.2	ug/L	
Chlorodibromomethan	e	< 0.5	0.5	ug/L	
Chloroethane		< 0.5	0.5	ug/L	
Chloroform		< 0.1	0.1	ug/L	
Chloromethane		< 1.0	1.0	ug/L	
2-Chlorotoluene		< 0.5	0.5	ug/L	
The spike recov	eries for this target a	analyte did m	not meet the QC	acceptance	criteria
in the MS/MSD.					
was not detected	d in the sample, the da			-	_
4-Chlorotoluene	•	< 0.5	0.5	ug/L	
1,2-Dibromo-3-chlor	opropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (	_	< 0.5	0.5	ug/L	
Dibromomethane	•	< 0.5	0.5	ug/L ug/L	
1,2-Dichlorobenzene		< 0.3	0.2	ug/L ug/L	
1,3-Dichlorobenzene		< 0.2	0.2	ug/L ug/L	
1,4-Dichlorobenzene		< 0.2	0.2	_	
z, z zzoniorowenzene		· U.4	0.2	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 38 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	ED:	INA WELL EVALUATION	mathew beckman
nple No: 200	<b>514048</b> Rece	iving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
03-JUN-2005	1430	w-18	-
Trip Blank	Field Blar	ık	

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results ar	e indicated by BC	DLD.		
468 VOCs in Water by GC/MS (Cont.)				08-JUN-05
Tenative detection of propane at	lug/L and pentane	e at 1 ug/L		
(concentrations estimated).	J, F	g		
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	< 0.2	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
cis-1,2-Dichloroethene	7.2	0.2	ug/L	
trans-1,2-Dichloroethene	11	0.1	ug/L	
Dichlorofluoromethane	< 0.5	0.5	ug/L	
1,2-Dichloropropane	< 0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
1,3-Dichloropropane	< 0.2	0.2	ug/L	
2,2-Dichloropropane	< 0.5	0.5	ug/L	
1,1-Dichloropropene	< 0.2	0.2	ug/L	
cis-1,3-Dichloropropene	< 0.2	0.2	ug/L	
trans-1,3-Dichloropropene	< 0.2	0.2	ug/L	
Ethylbenzene	< 0.5	0.5	ug/L	
Peak present below report level				
Ethyl ether	< 2.0	2.0	ug/L	
Hexachlorobutadiene	< 1.0	1.0	ug/L	
Isopropylbenzene	< 0.5	0.5	ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005 Request Page: 39 of 46 Samples: 200514041 - 200514049 Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005 Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman 200514048 Receiving Comments: -Sample No: Coll Date Coll Time Field No Sampling Point 03-JUN-2005 1430 w-18 Trip Blank Field Blank 200514052 200514044 Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05 Rept Level Units Analysis Date Result Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS (Cont.) 08-JUN-05 Tenative detection of propane at lug/L and pentane at l ug/L (concentrations estimated). p-Isopropyltoluene < 0.5 0.5 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. Methylene chloride < 0.5 0.5 Methyl ethyl ketone (MEK) < 10 10 ua/L Methyl isobutyl ketone (MIBK) < 5.0 5.0 ug/L < 2.0 Methyl tertiary butyl ether (MTBE) 2.0 ug/L < 1.0 Naphthalene 1.0 ug/L n-Propylbenzene 0.5 0.5 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. Styrene < 0.5 0.5 1,1,1,2-Tetrachloroethane < 0.2 0.2 ug/L 1,1,2,2-Tetrachloroethane < 0.2 0.2 ug/L The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification. Tetrachloroethene < 0.2 0.2 ug/L

< 10

Tetrahydrofuran (THF)

ug/L

10

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 40 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID_		Project Na	me		Sampled	By
-	EDINA WELL EVA		LUATION	п	mathew beckman	
Sample No: 200	) <b>514048</b> Rece	iving Commen	ts: -			
Coll Date	Coll Time	Field No		Sampli	ng Point	
03~JUN-2005	1430	w-18			-	
Trip Blank	Field Bla	nk				
200514052	20051404	4				
Note: Positiv		sults are in	Result dicated by	Rept Level	Units	Analysis Dat
8 VOCs in Water h	- 2	-	/			CO-MOD-90
	letection of p .tions estimat		/L and penta	ne at 1 ug/L		
Toluene	cions escimac	ca).	0.5	0.5	ug/L	
1,2,3-Trichloro	hanzene		< 1.0	1.0	ug/L	
1,2,4-Trichloro			< 0.5	0.5	ug/L	
1,1,1-Trichloro			< 0.2	0.2	ug/L	
1,1,2-Trichloro			< 0.2	0.2	ug/L	
The spike re	ecoveries for	this target a	analyte did m	not meet the QC	acceptanc	e criteria
<del>-</del>				itive bias and		
			-	epted without o		
musi ah lawa at hawa	(mar)	= '	0.5	0.1	22 <i>~</i> /T	

0.1 Trichloroethene (TCE) 0.6 ug/L Trichlorofluoromethane < 0.5 0.5 ug/L 0.5 < 0.5 uq/L 1,2,3-Trichloropropane 0.2 1,1,2-Trichlorotrifluoroethane < 0.2 ug/L 0.5 1,2,4-Trimethylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

1,3,5-Trimethylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Vinyl chloride 3.8 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 41 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID Project Name Sampled By

- EDINA WELL EVALUATION mathew beckman

Sample No: 200514048 Receiving Comments: -

Coll Date Coll Time Field No Sampling Point
03-JUN-2005 1430 w-18 -

Trip Blank Field Blank 200514052 200514044

Unit: ORGANIC CHEMISTRY Reviewed By PDs on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.) 08-JUN-05

Tenative detection of propane at lug/L and pentane at lug/L (concentrations estimated).

o-Xylene < 0.2 ug/L p&m-Xylene < 0.3 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 42 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDIN	A WELL EVALUATION	mathew beckman
nple No: 200	<b>514049</b> Receiv	ing Comments: -	
Coll Date		Field No	Sampling Point
03-JUN-2005	1520	w-2	<del>-</del>
m	Field Blank		
Trip Blank			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result are indicated by BO	Rept Level	Units	Analysis Date
			08-JUN-05
95.9	70-130	%	
125	70-130	%	
< 20	20	ug/L	
< 0.5	0.5	ug/L	
< 0.2	0.2	ug/L	
< 0.2	0.2	ug/L	
< 0.5	0.5	ug/L	
< 0.2	0.2	ug/L	
< 0.5	0.5	ug/L	
< 1.0	1.0	ug/L	
< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
	95.9 125 < 20 < 0.5 < 0.2 < 0.2 < 0.5 < 0.2 < 0.5 < 1.0	95.9 70-130 125 70-130 < 20 20 < 0.5 0.5 < 0.2 0.2 < 0.5 0.5 < 0.2 0.2 < 0.5 0.5 < 0.5 0.5 < 1.0 1.0	### indicated by BOLD.  ### 95.9

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 43 of 46

Samples: 200514041 - 200514049

Dichlorofluoromethane

1,2-Dichloropropane

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project Name		lame	Sampled By		
-	EDINA WELL EVALUATION			mathew beckman		
nple No: 200	<b>514049</b> Recei	lving Comme	nts: -			
Coll Date	Coll Time	<u>Field N</u> o		Sampling Point		
03-JUN-2005	1520	w-2		-		
		,				
Trip Blank	Field Blan	.K				

Unit: ORGANIC CHEMISTRY Rev	viewed By <b>PDS</b> on	16-JUN-05	
	Result	Rept Level Units	Analysis Date
Note: Positive Organic Results are	e indicated by I	BOLD.	
468 VOCs in Water by GC/MS (Cont.)			08-JUN-05
Chlorobenzene	< 0.2	0.2 ug/L	
Chlorodibromomethane	< 0.5	0.5 ug/L	
Chloroethane	< 0.5	0.5 ug/L	
Chloroform	< 0.1	0.1 ug/L	
Chloromethane	< 1.0	1.0 ug/L	
2-Chlorotoluene	< 0.5	0.5 ug/L	
The spike recoveries for this targ	et analyte did n	ot meet the QC acceptar	nce criteria
in the MS/MSD. Since the recoveri			
was not detected in the sample, th			
4-Chlorotoluene	< 0.5	0.5 ug/L	
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0 ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5 ug/L	
Dibromomethane	< 0.5	0.5 ug/L	
1,2-Dichlorobenzene	< 0.2	0.2 ug/L	
1,3-Dichlorobenzene	< 0.2	0.2 ug/L	
1,4-Dichlorobenzene	< 0.2	0.2 ug/L	
Dichlorodifluoromethane	< 1.0	1.0 ug/L	
1,1-Dichloroethane	< 0.2	0.2 ug/L	
1,2-Dichloroethane	< 0.2	0.2 ug/L	
1,1-Dichloroethene	< 0.5	0.5 ug/L	
cis-1,2-Dichloroethene	0.2	0.2 ug/L	
trans-1,2-Dichloroethene	< 0.1	0.1 ug/L	

< 0.5

< 0.2

ug/L

ug/L

0.5

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 44 of 46

Samples: 200514041 - 200514049 Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman 200514049 Receiving Comments: -Sample No: Coll Time Coll Date Field No Sampling Point 03-JUN-2005 1520 w-2 Trip Blank Field Blank 200514052 200514044 

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)					08-JUN-05
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene	<	0.5	0.5	ug/L	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	ug/L	
Isopropylbenzene	<	0.5	0.5	ug/L	
p-Isopropyltoluene	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	$\mathtt{ug}/\mathtt{L}$
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	< 1.0	1.0	ug/L
n-Propylbenzene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene < 0.5 0.5 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 45 of 46

Samples: 200514041 - 200514049

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	ID Project Name  EDINA WELL EVALUATION		Sampled By				
-			UATION	mathew beckman			
Sample No: 200	) <b>514049</b> Recei	ving Comment	.s: -				
Coll Date	Coll Time	Field No		Sampli	ng Point		
03-JUN-2005	1520	w-2			_		
Trip Blank	Field Blan	k					
200514052	200514044						
****	*****	***** SAN	MPLE RESULT:	S ********	*****	*****	
Unit: ORGANIC	CHEMISTRY	Reviewe	d By <b>PDS</b> on	16-JUN-05			
			Result	Rept Level	Units	Analysis	Date
Note: Positiv	e Organic Res	sults are ind	licated by H	BOLD.		_	
468 VOCs in Water b	ov GC/MS (C	ont.)				08-JUI	vi – 0.5
1,1,1,2-Tetrach	2	,	< 0.2	0.2	ug/L	00 001	• 03
1,1,2,2-Tetrach			< 0.2	0.2	ug/L		
		this target a		ot meet the QC	<del>-</del>	e criteria	
				tive bias and			
			_	pted without q	_	_	
Tetrachloroethe		- '	< 0.2	0.2	ug/L		
Tetrahydrofuran	(THF)		< 10	10	ug/L		
Toluene			< 0.5	0.5	ug/L		
Peak present	below report	level					
1,2,3-Trichlorol	oenzene		< 1.0	1.0	ug/L		
1,2,4-Trichlorob	oenzene		< 0.5	0.5	ug/L		
1,1,1-Trichloroe	ethane		< 0.2	0.2	ug/L		
1,1,2-Trichloroe	ethane		< 0.2	0.2	ug/L		
The spike re	coveries for t	his target ar	nalvte did n	ot meet the QC	acceptance	e criteria	
				tive bias and			
				pted without q	_	-	
Trichloroethene		mpio, one au	< 0.1	0.1	ug/L	J.1	
	below report	level		V • 4	49/2		
Trichlorofluorom	-	10401	< 0.5	0.5	ug/I		
1,2,3-Trichloror			< 0.5	0.5	ug/L		
1,1,2-Trichlorot	=				ug/L		
1,1,2 111011010			< 0.2	0.2	ug/L		

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 46 of 46

Samples: 200514041 - 200514049

o-Xylene

p&m-Xylene

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project Name			Sampled By		
-	EDINA WELL E	VALUATION	mat	mathew beckman		
Sample No: 200	514049 Receiving Comm	ments: -				
Coll Date	Coll Time Field No		Sampling	Point		
03-JUN-2005	1520 w-2		-			
Trip Blank	Field Blank					
200514052	200514044					
	CHEMISTRY Revi	ewed By PDS or Result indicated by 1	Rept Level [	nits Analy	sis Date	
468 VOCs in Water b	y GC/MS (Cont.)			08	- <b>JUN-</b> 05	
1,2,4-Trimethylb	enzene	< 0.5	0.5	ug/L		
in the MS/MS was not dete 1,3,5-Trimethylb The spike re in the MS/MS was not dete	coveries for this targe D. Since the recoveries cted in the sample, the penzene coveries for this targe D. Since the recoveries cted in the sample, the	s showed a posi datum was acce < 0.5 t analyte did r s showed a posi datum was acce	tive bias and the opted without quado.5 not meet the QC at tive bias and the opted without quado.	e target analyte lification. ug/L cceptance criteri e target analyte lification.		
Vinyl chloride		< 0.2	0.2	ug/L		

< 0.2

< 0.3

0.2 ug/L

ug/L

0.3

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 1 of 11

Samples: 200514050 - 200514052

Date Reported: 24-JUN-2005
Original Date Reported: 16-JUN-2005

Site ID	P	roject Name	Sampled By
99613-XA EDINA W		WELL EVALUATION	mathew beckman
Sample No: 200	<b>514050</b> Receivi	ng Comments: 468	
Coll Date	C <u>oll Time</u> Fi	Leld No	Sampling Point
03-JUN-2005	1230	-	w21 ms
Trip Blank	Field Blank		
200514052 200514044			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by B	OLD.		
468 VOCs in Water by GC/MS				17-JUN-05
4-Bromofluorobenzene (surrogate)	79.5	70-130	%	17 001 03
1,2-Dichloroethane-D4 (surrogate)	93.4	70-130	%	
Dibromofluoromethane (surrogate)	112	70-130	%	
Toluene-d8 (surrogate)	109	70-130	%	
Acetone	111	10	%	
Allyl chloride	92	2.5	%	
Benzene	102	1.0	%	
Bromobenzene	94	1.0	%	
Bromochloromethane	77	2.5	%	
Bromodichloromethane	91	1.0	%	
Bromoform	85	2.5	%	
Bromomethane	85	10	%	
n-Butylbenzene	142	2.5	%	
sec-Butylbenzene	135	2.5	%	
tert-Butylbenzene	134	2.5	%	
Carbon tetrachloride	93		% %	
Chlorobenzene		1.0	-	
Chlorodibromomethane	116	1.0	%	
	113	2.5	%	
Chloroethane	106	2.5	%	
Chloroform	97	0.5	%	
Chloromethane	105	5.0	%	
2-Chlorotoluene	139	2.5	%	
4-Chlorotoluene	136	2.5	%	
1,2-Dibromo-3-chloropropane (DBCP)	119	10	%	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 2 of 11

Samples: 200514050 - 200514052

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Site ID Project Name		Sampled By	
99613-XA	EDINA	WELL EVALUATION	mathew beckman	
Sample No: 200	0 <b>514050</b> Receivir	ng Comments: 468		-
Coll Date	Coll Time Fi	eld No	Sampling Point	_
03-JUN-2005	1230	-	w21 ms	
Trip Blank	Field Blank			
200514052	200514044			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	e indicated by BO	LD.		
468 VOCs in Water by GC/MS (Cont.)				17-JUN-05
1,2-Dibromoethane (EDB)	123	2.5	%	17 801 03
Dibromomethane	91	2.5	%	
1,2-Dichlorobenzene	112	1.0	%	
1,3-Dichlorobenzene	126	1.0	%	
1,4-Dichlorobenzene	116	1.0	%	
Dichlorodifluoromethane	89	10	%	
1,1-Dichloroethane	105	1.0	%	
1,2-Dichloroethane	102	1.0	%	
1,1-Dichloroethene	93	2.5	%	
cis-1,2-Dichloroethene	91	1.0	%	
trans-1,2-Dichloroethene	92	0.5	%	
Dichlorofluoromethane	112	2.5	%	
	108	1.0	%	
1,2-Dichloropropane	134	1.0	%	
1,3-Dichloropropane			_	
2,2-Dichloropropane	92	2.5	%	
1,1-Dichloropropene	94	1.0	%	
cis-1,3-Dichloropropene	118	1.0	%	
trans-1,3-Dichloropropene	118	1.0	%	
Ethylbenzene	126	2.5	%	
Ethyl ether	98	10	%	
Hexachlorobutadiene	94	5.0	%	
Isopropylbenzene	117	2.5	%	
p-Isopropyltoluene	138	2.5	%	
Methylene chloride	91	2.5	%	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 3 of 11

Samples: 200514050 - 200514052 Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Site ID Project Name		Sampled By
99613-XA	EDINA	WELL EVALUATION	mathew beckman
Sample No: 200	<b>9514050</b> Receivi	ng Comments: 468	
Coll Date	Coll Time F	ield No	Sampling Point
03-JUN-2005	1230	-	w21 ms
Trip Blank	Field Blank		
200514052	200514044		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by B	OLD.		
468 VOCs in Water by GC/MS (Cont.)				17-JUN-05
Methyl ethyl ketone (MEK)	115	10	%	
Methyl isobutyl ketone (MIBK)	135	10	%	
Methyl tertiary butyl ether (MTBE)	92	10	%	
Naphthalene	104	5.0	%	
n-Propylbenzene	141	2.5	%	
Styrene	129	2.5	%	
1,1,1,2-Tetrachloroethane	111	1.0	%	
1,1,2,2-Tetrachloroethane	133	1.0	%	
Tetrachloroethene	77	1.0	%	
Tetrahydrofuran (THF)	116	10	%	
Toluene	136	2.5	%	
1,2,3-Trichlorobenzene	115	5.0	%	
1,2,4-Trichlorobenzene	96	2.5	%	
1,1,1-Trichloroethane	94	1.0	%	
1,1,2-Trichloroethane	135	1.0	%	
Trichloroethene (TCE)	83	0.5	%	
Trichlorofluoromethane	110	2.5	%	
1,2,3-Trichloropropane	125	2.5	%	
1,1,2-Trichlorotrifluoroethane	78	1.0	%	
1,2,4-Trimethylbenzene	141	2.5	%	
1,3,5-Trimethylbenzene	141	2.5	%	
Vinyl chloride	117	1.0	%	
o-Xylene	122	1.0	%	
p&m-Xylene	130	2.0	%	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 4 of 11

Samples: 200514050 - 200514052

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	P	roject Name	Sampled By
99613-XA	EDINA	WELL EVALUATION	mathew beckman
Sample No: 200	<b>514051</b> Receivi	ng Comments: 468	
Coll Date 03-JUN-2005	Coll Time Fi	eld No	Sampling Point w21 msd
Trip Blank 200514052	Field Blank 200514044		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by B	OLD.		
468 VOCs in Water by GC/MS				17-JUN-05
4-Bromofluorobenzene (surrogate)	80.0	70-130	%	
1,2-Dichloroethane-D4 (surrogate)	92.6	70-130	%	
Dibromofluoromethane (surrogate)	112	70-130	%	
Toluene-d8 (surrogate)	110	70-130	%	
Acetone	121	10	%	
Allyl chloride	90	2.5	%	
Benzene	98	1.0	%	
Bromobenzene	95	1.0	%	
Bromochloromethane	76	2.5	%	
Bromodichloromethane	89	1.0	%	
Bromoform	84	2.5	%	
Bromomethane	83	10	%	
n-Butylbenzene	139	2.5	%	
sec~Butylbenzene	127	2.5	%	
tert-Butylbenzene	123	2.5	%	
Carbon tetrachloride	91	1.0	%	
Chlorobenzene	114	1.0	%	
Chlorodibromomethane	110	2.5	%	
Chloroethane	101	2.5	%	
Chloroform	92	0.5	%	
Chloromethane	104	5.0	%	
2-Chlorotoluene	138	2.5	%	
4-Chlorotoluene	133	2.5	%	
1,2-Dibromo-3-chloropropane (DBCP)	117	10	%	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005 Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 5 of 11

200514050 - 200514052 Samples:

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	ite ID Project Name		Project Name		Sampled By
99613-XA	EDI	NA WELL EVALUATION	mathew beckman		
Sample No: 200	<b>514051</b> Recei	ving Comments: 468			
Coll Date 03-JUN-2005	Coll Time	Field No	Sampling Point w21 msd		
Trip Blank	Field Blan	ς			
200514052	200514044	- <del>-</del> -			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by BO	LD.		
468 VOCs in Water by GC/MS (Cont.)				17-JUN-05
1,2-Dibromoethane (EDB)	123	2.5	%	17-0011-03
Dibromomethane	90	2.5	%	
1,2-Dichlorobenzene	113	1.0	%	
1,3-Dichlorobenzene	123	1.0	%	
1,4-Dichlorobenzene	114	1.0	%	
Dichlorodifluoromethane	84	1.0	%	
1,1-Dichloroethane	104	1.0	%	
1,2-Dichloroethane	99			
1,1-Dichloroethene	99 97	1.0	%	
cis-1,2-Dichloroethene		2.5	%	
trans-1,2-Dichloroethene	91	1.0	%	
Dichlorofluoromethane	88	0.5	%	
	107	2.5	%	
1,2-Dichloropropane	105	1.0	%	
1,3-Dichloropropane	130	1.0	%	
2,2-Dichloropropane	91	2.5	%	
1,1-Dichloropropene	92	1.0	%	
cis-1,3-Dichloropropene	118	1.0	%	
trans-1,3-Dichloropropene	119	1.0	%	
Ethylbenzene	129	2.5	%	
Ethyl ether	97	10	%	
Hexachlorobutadiene	92	10	%	
Isopropylbenzene	117	2.5	%	
p-Isopropyltoluene	136	2.5	%	
Methylene chloride	89	2.5	%	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 6 of 11

Samples: 200514050 - 200514052

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Proje	ect Name	Sampled By
99613-XA	EDINA WEL	L EVALUATION	mathew beckman
ample No: 200	7514051 Receiving C	Comments: 468	
Coll Date 03-JUN-2005	Coll Time Field 0000 -	No	Sampling Point w21 msd
Trip Blank	Field Blank		
200514052	200514044		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by B	OLD.		
468 VOCs in Water by GC/MS (Cont.)				17 7777 05
		4.5	•	17-JUN-05
Methyl ethyl ketone (MEK)	117	10	%	
Methyl isobutyl ketone (MIBK)	135	10	%	
Methyl tertiary butyl ether (MTBE)	93	10	%	
Naphthalene	110	5.0	%	
n-Propylbenzene	137	2.5	%	
Styrene	127	2.5	%	
1,1,1,2-Tetrachloroethane	113	1.0	%	
1,1,2,2-Tetrachloroethane	125	1.0	%	
Tetrachloroethene	75	1.0	%	
Tetrahydrofuran (THF)	118	10	%	
Toluene	124	2.5	%	
1,2,3-Trichlorobenzene	116	5.0	%	
1,2,4-Trichlorobenzene	99	2.5	%	
1,1,1-Trichloroethane	92	1.0	%	
1,1,2-Trichloroethane	130	1.0	%	
Trichloroethene (TCE)	82	0.5	%	
Trichlorofluoromethane	105	2.5	%	
1,2,3-Trichloropropane	126	2.5	%	
1,1,2-Trichlorotrifluoroethane	85	1.0	%	
1,2,4-Trimethylbenzene	140	2.5	%	
1,3,5-Trimethylbenzene	134	2.5	%	
Vinyl chloride	114	1.0	%	
o-Xylene	122	1.0	%	
p&m-Xylene	128	2.0	%	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 7 of 11

Request Page: 7 of 11

Samples: 200514050 - 200514052 Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

	roject Name WELL EVALUATION		Sampled	
JJUIS-AA EDINA	WEDD EVALUATION	ı	Idenew Deci	nua:i
Sample No: 200514052 Receiving	ng Comments: 468			
Coll Date Coll Time Fi	eld No	Sampli	ng Point	
03-JUN-2005 0000	-	tri	p blank	
Trip Blank Field Blank				
200514052 200514044				
******	***** SAMPLE RESUL	rs ********	*****	*****
Unit: ORGANIC CHEMISTRY	Reviewed By <b>PDS</b> o			
	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Resul	ts are indicated by	BOLD.		
3 VOCs in Water by GC/MS				08-JUN-05
4-Bromofluorobenzene (surrogate)	96.1	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate	e) 127	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	< 0.2	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	
The spike recoveries for this				
in the MS/MSD. Since the red				
was not detected in the sampl	le, the datum was acc	epted without q	ualificati	on.
sec-Butylbenzene	< 0.5	0.5	ug/L	
The spike recoveries for this	s target analyte did	not meet the QC	acceptanc	e criteria
in the MS/MSD. Since the red	coveries showed a pos	itive bias and	the target	analyte
was not detected in the sampl	le, the datum was acc	epted without q	ualificati	on.
tert-Butylbenzene	< 0.5	0.5	ug/L	
mb il	s target analyte did	not meet the OC	acceptance	e criteria
The spike recoveries for this				
The spike recoveries for this in the MS/MSD. Since the rec				analvte
	coveries showed a pos	itive bias and	the target	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 8 of 11

Samples: 200514050 - 200514052

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
99613-XA EDINA WELL EVALUA		NA WELL EVALUATION	mathew beckman
ample No: 200	<b>9514052</b> Receiv	ring Comments: 468	
Coll Date	Coll Time	Field No	Sampling Point
03-JUN-2005	0000	-	trip blank
Trip Blank	Field Blank	:	
TITE DIGING			

Unit: ORGANIC CHEMISTRY Revi

1,2-Dichloropropane

Reviewed By PDS on 16-JUN-05

Ne	viewed by PDS Of	1 10-00N-05		
	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results ar	e indicated by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)				08-JUN-05
Chlorobenzene	< 0.2	0.2	ug/L	
Chlorodibromomethane	< 0.5	0.5	ug/L	
Chloroethane	< 0.5	0.5	ug/L	
Chloroform	< 0.1	0.1	ug/L	
Chloromethane	< 1.0	1.0	ug/L	
2-Chlorotoluene	< 0.5	0.5	ug/L	
The spike recoveries for this tar	get analyte did m	not meet the QC	acceptano	e criteria
in the MS/MSD. Since the recover	ies showed a pos:	itive bias and	the target	analyte
was not detected in the sample, t	he datum was acce	epted without q	ualificati	on.
4-Chlorotoluene	< 0.5	0.5	ug/L	
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
1,2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	
1,4-Dichlorobenzene	< 0.2	0.2	ug/L	
Dichlorodifluoromethane	< 1.0	1.0	ug/L	
1,1-Dichloroethane	< 0.2	0.2	ug/L	
1,2-Dichloroethane	< 0.2	0.2	ug/L	
1,1-Dichloroethene	< 0.5	0.5	ug/L	
cis-1,2-Dichloroethene	< 0.2	0.2	ug/L	
trans-1,2-Dichloroethene	< 0.1	0.1	ug/L	
Dichlorofluoromethane	< 0.5	0.5	ug/L	

< 0.2

ug/L

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 9 of 11

Request Page: 9 or 11

Samples: 200514050 - 200514052 | Date Reported: 24-JUN-2005
Original Date Reported: 16-JUN-2005

Site ID	Project Name	Sampled By
99613-XA	EDINA WELL EVALUATION	mathew beckman

Sample No: 200514052 Receiving Comments: 468

Coll Date Coll Time Field No Sampling Point
03-JUN-2005 0000 - trip blank

Trip Blank Field Blank 200514052 200514044

Unit: ORGANIC CHEMISTRY Re-

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are ind	dicated by	BOLD.		

468 VOCs in Water by GC/MS (Cont.)					08-JUN-05
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene	<	0.5	0.5	ug/L	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	ug/L	
Isopropylbenzene	<	0.5	0.5	ug/L	
p-Isopropyltoluene	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	ug/L
Naphthalene	< 1.0	1.0	ug/L
n-Propylbenzene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene < 0.5 0.5 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 06-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 10 of 11

Samples: 200514050 - 200514052

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

	Project Name Sampled By		Project Name Sampled By		Sampled By
EDI	NA WELL EVALUA	ATION	mathew beckman		
<b>514052</b> Recei	ving Comments	: 468			
Coll Time	Field No		Sampling Point		
0000	-		trip blank		
Field Blan	k				
		EDINA WELL EVALUA    514052   Receiving Comments    Coll Time   Field No	EDINA WELL EVALUATION    514052   Receiving Comments: 468    Coll Time   Field No		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date
Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS	(Cont.)					08-JUN-05
1,1,1,2-Tetrachloroethane		<	0.2	0.2	ug/L	
1,1,2,2-Tetrachloroethane		<	0.2	0.2	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Tetrachloroethene	< 0.2	0.2	ug/L
Tetrahydrofuran (THF)	< 10	10	ug/L
Toluene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 1.0	1.0	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.2	0.2	ug/L
1,1,2-Trichloroethane	< 0.2	0.2	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Trichloroethene (TCE)	<	0.1	0.1	ug/L
Trichlorofluoromethane	<	0.5	0.5	ug/L
1,2,3-Trichloropropane	<	0.5	0.5	ug/L
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L
1,2,4-Trimethylbenzene	<	0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Date Received: 06-JUN-2005 Program: PL

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 11 of 11

Samples: 200514050 - 200514052

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID Project Name Sampled By 99613-XA EDINA WELL EVALUATION mathew beckman Sample No: 200514052 Receiving Comments: 468 Coll Date Coll Time Field No Sampling Point 03-JUN-2005 0000 trip blank Trip Blank Field Blank 200514052 200514044 

Unit: ORGANIC CHEMISTRY

Rept Level Units Result Analysis Date

Reviewed By PDS on 16-JUN-05

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)

08-JUN-05 0.5 ug/L

1,3,5-Trimethylbenzene

< 0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte

was not detected in the sample, the datum was accepted without qualification.

Vinyl chloride < 0.2 0.2 o-Xylene < 0.2 0.2 ug/L < 0.3 p&m-Xylene 0.3 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 1 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Nam	ame Sampled By		
-	EDI	NA WELL EVALU	DATION mathew beckman		
mple No: 200	<b>514574</b> Recei	ving Comment:	5: <b>-</b>		
Coll Date	Coll Time	Field No	Sampling Point		
06-JUN-2005	1545	p304	-		
maria plant	Field Blan	k			
Trip Blank					

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Results are indicated by BOLD.

4

4-Bromofluorobenzene (surrogate)	96.9	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)	128	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	< 0.2	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 2 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name Sampled By		Project Name Sampled By		Project Name Sampled By		Project Name Sampled		Project Name Sampled F	
-	EDIN	IA WELL EVALUATION	mathew beckman								
mple No: 200	<b>)514574</b> Receiv	ving Comments: -									
Coll Date	Coll Time I	Field No	Sampling Point								
Coll Date 06-JUN-2005	Coll Time I	Field No p304	Sampling Point -								
		p304	Sampling Point -								

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Note: Positive Organic Results are	Result indicated by B	Rept Level	Units	Analysis Date
468 VOCs in Water by GC/MS (Cont.)				09-JUN-05
Chlorobenzene	< 0.2	0.2	ug/L	
Chlorodibromomethane	< 0.5	0.5	ug/L	
Chloroethane	< 0.5	0.5	ug/L	
Chloroform	< 0.1	0.1	ug/L	
Chloromethane	< 1.0	1.0	ug/L	
2-Chlorotoluene	< 0.5	0.5	ug/L	
The spike recoveries for this targe	t analyte did n	ot meet the QC	acceptance	e criteria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

4-Chlorotoluene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

1,2-Dibromo-3-chloropropane (DBCP)	<	2.0	2.0	ug/L
1,2-Dibromoethane (EDB)	<	0.5	0.5	ug/L
Dibromomethane	<	0.5	0.5	ug/L
1,2-Dichlorobenzene	<	0.2	0.2	ug/L
1,3-Dichlorobenzene	<	0.2	0.2	ug/L
1,4-Dichlorobenzene	<	0.2	0.2	ug/L
Dichlorodifluoromethane	<	1.0	1.0	ug/L
1,1-Dichloroethane	<	0.2	0.2	ug/L
1,2-Dichloroethane	<	0.2	0.2	ug/L
1,1-Dichloroethene	<	0.5	0.5	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 3 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Rept Level Units

Analysis Date

Site ID		Project Name	Sampled By
-	EDIN	NA WELL EVALUATION	mathew beckman
ample No: 200	<b>)514574</b> Receiv	ving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
06-JUN-2005	1545	p304	-
Trip Blank	Field Blank		
200514583	200514582		

200314301

Result

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

		110	D 4 T C	Webe Boier	OHICS	inicijoso bacc
Note: Positive Organic Results	s are	indicat	ed by	BOLD.		
468 VOCs in Water by GC/MS (Cont.	)					09-JUN-05
cis-1,2-Dichloroethene		<	0.2	0.2	ug/L	
trans-1,2-Dichloroethene		<	0.1	0.1	ug/L	
Dichlorofluoromethane		<	0.5	0.5	ug/L	
1,2-Dichloropropane		<	0.2	0.2	ug/L	
1,3-Dichloropropane		<	0.2	0.2	ug/L	
2,2-Dichloropropane		<	0.5	0.5	ug/L	
1,1-Dichloropropene		<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene		<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene		<	0.2	0.2	ug/L	
Ethylbenzene		<	0.5	0.5	ug/L	
Ethyl ether		<	2.0	2.0	ug/L	
Hexachlorobutadiene		<	1.0	1.0	${\tt ug/L}$	
Isopropylbenzene		<	0.5	0.5	ug/L	
p-Isopropyltoluene		<	0.5	0.5	ug/L	
The snike recoveries for this	target	analut	o did n	ot most the OC	aggontano	o aritoria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 4 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Nar	ne	Sampled By
-	EDII	NA WELL EVAI	UATION	mathew beckman
mple No: 200	<b>9514574</b> Recei	ving Comment	.s: -	
Coll Date	Coll Time	Field No		Sampling Point
06-JUN-2005	1545	p304		-
Trip Blank	Field Blank	ς		
IIIp brank				

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Note: Positive Organic P	Results are	Result indicated by B	Rept Level	Units	Analysis Date
468 VOCs in Water by GC/MS	(Cont.)	~ 2.0	2.0	na/I	09-JUN-05

Methyl tertiary butyl ether (MTBE) 2.0 ug/L Naphthalene < 1.0 1.0 ug/L < 0.5 0.5 n-Propylbenzene ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene	<	0.5	0.5	ug/L
1,1,1,2-Tetrachloroethane	<	0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	<	0.2	0.2	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Tetrachloroethene	< 0.2	0.2	ug/L
Tetrahydrofuran (THF)	< 10	10	ug/L
Toluene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 1.0	1.0	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.2	0.2	ug/L
1,1,2-Trichloroethane	< 0.2	0.2	ug/L
Trichloroethene (TCE)	0.1	0.1	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,1,2-Trichlorotrifluoroethane	< 0.2	0.2	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 5 of 51

Samples: 200514574 - 200514584

p&m-Xylene

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sa	ampled By
<del>-</del>	ED	INA WELL EVALUATION	mathe	w beckman
Sample No: 200	<b>)514574</b> Rece	iving Comments: -		
Coll Date	Coll Time	Field No	Sampling Po	oint
06-JUN-2005	1545	p304	-	
Trip Blank	Field Blar	nk		
200514583	200514582	2		
Note: Positiv	ve Organic Re	Result sults are indicated b	Rept Level Uni	ts Analysis Dat
8 VOCs in Water k	oy GC/MS (	Cont.)		09-JUN-05
1,2,4-Trimethyl	benzene	< 0.5	0.5 ug	J/L
in the MS/MS	SD. Since the	this target analyte di recoveries showed a p ample, the datum was a	ositive bias and the	target analyte
1,3,5-Trimethyll	benzene	< 0.5	0.5 ug	f/L
in the MS/MS	SD. Since the	this target analyte di recoveries showed a p ample, the datum was a	ositive bias and the	target analyte
Vinyl chloride		< 0.2	-	r/L
o-Xylene		< 0.2	0.2 ug	r/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 0.3

0.3

ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 6 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Rept Level Units

Analysis Date

Site ID		Project 1	Name	Sampled By	
-	EDI	NA WELL EV	ALUATION	mathew beckman	
Sample No: 200	<b>514575</b> Recei	ving Comme	ents: -		
Coll Date 06-JUN-2005	Coll Time 1645	Field No		Sampling Point	
Trip Blank	Field Blan	k			
200514583	200514582	<del></del>			
*****	*****	******	SAMPLE RESULT	S ********	

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result

	MODULO	TOPO DOVOE	OHILLE	THICKLY DED DOGG
Note: Positive Organic Results ar	e indicated by	BOLD.		
468 VOCs in Water by GC/MS				09-JUN-05
4-Bromofluorobenzene (surrogate)	95.9	70-130	%	
1,2-Dichloroethane-D4 (surrogate)	90.3	70-130	%	
Dibromofluoromethane (surrogate)	111	70-130	%	
Toluene-d8 (surrogate)	102	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	< 0.2	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	
mbiba waaaaaaiaa faa bbin baw		00		a aritaria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 0.5 ug/I

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005 Request Page: 7 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005

Site ID		Project Name			Sampled	
-	EDI	NA WELL EVALUA:	rion	m	athew becl	<b>cman</b>
Sample No: 20051	1 <b>4575</b> Recei	ving Comments:	-			
Coll Date (	Coll Time	Field No		Samplin	ng Point	
06-JUN-2005	1645	p305			-	
Trip Blank	Field Blan	k				
200514583	200514582	<del></del>				
*****	*****	***** SAMPL	E RESULT	S ******	******	****
Unit: ORGANIC (	CHEMISTRY	Reviewed I	By <b>PDS</b> or	16-JUN-05		
		1	Result	Rept Level	Units	Analysis Da
Note: Positive	Organic Res	sults are indic	ated by	BOLD.		_
68 VOCs in Water by	GC/MS (C	ont.)				0 -MIT PO
68 VOCs in Water by tert-Butylbenzene	GC/MS (C	ont.)	< 0.5	0.5	ug/L	09-JUN-09
tert-Butylbenzene		· · · · · · · · · · · · · · · · · · ·			ug/L	
tert-Butylbenzene The spike reco	overies for t	this target anal	yte did r	not meet the QC	acceptanc	e criteria
tert-Butylbenzene The spike reco in the MS/MSD.	overies for t	this target anal recoveries show	yte did r ed a posi	not meet the QC itive bias and	acceptanc	e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD.	overies for t Since the ted in the sa	this target anal recoveries show ample, the datum	yte did r ed a posi	not meet the QC itive bias and	acceptanc the target ualificati	e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect	overies for t Since the ted in the sa	this target anal recoveries show ample, the datum	yte did red a posi was acce 0.2	not meet the QC itive bias and epted without q	acceptanc the target ualificati ug/L	e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor:	overies for t Since the ted in the sa ide	this target anal recoveries show ample, the datum	yte did red a posi was acce 0.2	not meet the QC itive bias and epted without q 0.2	acceptanc the target ualificati	e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene	overies for t Since the ted in the sa ide	this target anal recoveries show ample, the datum <	yte did red a posi was acce 0.2	not meet the QC itive bias and epted without q 0.2 0.2	acceptanc the target ualificati ug/L ug/L	e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha	overies for t Since the ted in the sa ide	this target anal recoveries show ample, the datum < < <	yte did red a positivas acces 0.2 0.2 0.5	not meet the QC itive bias and epted without q 0.2 0.2 0.5	acceptanc the target ualificati ug/L ug/L ug/L	e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha	overies for t Since the ted in the sa ide	this target anal recoveries show ample, the datum < < <	yte did red a posi was acces 0.2 0.2 0.5 0.5	not meet the QC itive bias and epted without q 0.2 0.2 0.5 0.5	acceptanc the target ualificati ug/L ug/L ug/L ug/L	e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroethane Chloroform	overies for t Since the ted in the sa ide	this target anal recoveries show ample, the datum	yte did red a positivas acces 0.2 0.2 0.5 0.5 0.1	not meet the QC itive bias and epted without q 0.2 0.2 0.5 0.5 0.1	acceptanc the target ualificati ug/L ug/L ug/L ug/L ug/L	e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroform Chloromethane 2-Chlorotoluene	overies for t Since the ded in the saide	this target anal recoveries show ample, the datum	yte did red a posi was acces 0.2 0.2 0.5 0.5 1.0	not meet the QC itive bias and epted without q 0.2 0.2 0.5 0.5 0.1 1.0	acceptanc the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte on.
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroethane Chloroform Chloromethane 2-Chlorotoluene The spike reco	overies for to since the saide ane	this target anal recoveries show ample, the datum	yte did red a positivas acces 0.2 0.2 0.5 0.5 0.1 1.0 0.5 yte did r	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC	acceptanc the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte on. e criteria
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroethane Chloroform Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD.	overies for to some some section the section the section the section when section the section to some section	this target anal recoveries show ample, the datum < < < < < < < < < < < < < < < < < < <	yte did red a positivas acces 0.2 0.5 0.5 0.1 1.0 0.5 yte did red a positivas	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC tive bias and	acceptance the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte on.  e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroethane Chloroform Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD.	overies for to some some section the section the section the section when section the section to some section	this target anal recoveries show ample, the datum	yte did red a positivas acces 0.2 0.5 0.5 0.1 1.0 0.5 yte did red a positivas	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC tive bias and	acceptance the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte on.  e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroethane Chloroform Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD. was not detect 4-Chlorotoluene	overies for the saide ane since the Since the said and seed in the said and sa	this target anal recoveries show ample, the datum	yte did red a posice was access 0.2 cm. 0.5 cm. 1 cm. 1.0 cm. 5 cm. 4 did red a posice was access 0.5	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 act meet the QC tive bias and epted without q 0.5	acceptanc the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte on.  e criteria analyte on.
The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroform Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD. was not detect 4-Chlorotoluene The spike reco	overies for the saide ane overies for the saide and the saide are seed in the saide are the saide ar	this target anal recoveries show ample, the datum control of the datum control of the datum ample, the datum coveries show ample, the datum coveries analytics.	yte did red a posice was access 0.2 cm. 0.5 cm. 1.0 cm. 0.5 yte did red a posice was access 0.5 yte did red access 0.5 yte	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC oct meet the QC	acceptance the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte on.  e criteria analyte on. e criteria
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroform Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD. was not detect 4-Chlorotoluene The spike reco in the MS/MSD.	overies for the saide ane overies for the saide sed in th	this target anal recoveries show ample, the datum control of the coveries show ample, the datum coveries show ample, the datum coveries show recoveries show recoveries show recoveries show	yte did red a posice was access 0.2 cm. 0.5 cm. 1.0 cm. 0.5 yte did red a posice was access yte did red a posice did red red red red red red red red red re	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC otive bias and epted without q 0.5 not meet the QC otive bias and epted without q 0.5 not meet the QC otive bias and epted without q 0.5 not meet the QC otive bias and epted without q 0.5 not meet the QC otive bias and	acceptance the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte on.  e criteria analyte on. e criteria analyte
tert-Butylbenzene The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroform Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD. was not detect 4-Chlorotoluene The spike reco in the MS/MSD.	overies for to since the second in the secon	this target anal recoveries show ample, the datum chis target anal recoveries show ample, the datum recoveries show ample, the datum recoveries show ample, the datum ample, the datum	yte did red a posice was access 0.2 cm. 0.5 cm. 1 cm. 1.0 cm. 5 cm. 2 cm	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC otive bias and epted without q 0.5 not meet the QC otive bias and epted without q 0.5 not meet the QC otive bias and epted without q 0.5 not meet the QC otive bias and epted without q 0.5 not meet the QC otive bias and	acceptance the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L acceptance the target ualificati ug/L acceptance	e criteria analyte on.  e criteria analyte on. e criteria analyte
The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroethane Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD. was not detect 4-Chlorotoluene The spike reco in the MS/MSD. was not detect	overies for to since the saide ane since the second in the saide are since the second in the saide are since the second in the saide aropropane (D	this target anal recoveries show ample, the datum chis target anal recoveries show ample, the datum recoveries show ample, the datum recoveries show ample, the datum ample, the datum	yte did red a positivas acces  0.2  0.5  0.5  0.1  1.0  0.5  yte did red a positivas acces  0.5  yte did red a positivas acces  2.0	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 2.0	acceptance the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L acceptance the target ualificati ug/L acceptance the target ualificati ug/L	e criteria analyte on.  e criteria analyte on. e criteria analyte
The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroethane Chloroform Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD. was not detect 4-Chlorotoluene The spike reco in the MS/MSD. was not detect 1,2-Dibromo-3-chloromo-3-chloromo-1	overies for to since the saide ane since the second in the saide are since the second in the saide are since the second in the saide aropropane (D	this target anal recoveries show ample, the datum chis target anal recoveries show ample, the datum chis target anal recoveries show ample, the datum	yte did red a posice was access 0.2 cm. 0.5 cm. 1 cm. 0.5 cm. 1 cm. 0.5 cm. access 0.5 cm. acces	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 2.0 0.5	acceptance the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L acceptance the target ualificati ug/L acceptance the target ualificati ug/L ug/L acceptance	e criteria analyte on.  e criteria analyte on. e criteria analyte
The spike reco in the MS/MSD. was not detect Carbon tetrachlor: Chlorobenzene Chlorodibromometha Chloroethane Chloroform Chloromethane 2-Chlorotoluene The spike reco in the MS/MSD. was not detect 4-Chlorotoluene The spike reco in the MS/MSD. was not detect 1,2-Dibromo-3-chloromomethane	overies for the second in the	this target anal recoveries show ample, the datum chis target anal recoveries show ample, the datum chis target anal recoveries show ample, the datum ample, the datum datum decoveries show ample, the datum decoveries show ample, th	yte did red a posice was accessory to did red red red red red red red red red re	not meet the QC itive bias and epted without q 0.2 0.5 0.5 0.1 1.0 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 0.5 not meet the QC tive bias and epted without q 2.0	acceptance the target ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L acceptance the target ualificati ug/L acceptance the target ualificati ug/L	e criteria analyte on.  e criteria analyte on. e criteria analyte

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 8 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDIN	A WELL EVALUATION	mathew beckman
nple No: 200	<b>9514575</b> Receiv	ing Comments: -	
Coll Date	Coll Time I	Field No	Sampling Point
06-JUN-2005	1645	p305	-
Trip Blank	Field Blank		
TITE DIGITA			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Resu	lt Rept Lev	el Units	Analysis Date
Note: Positive Organic Results	are indicated	by BOLD.		
468 VOCs in Water by GC/MS (Cont.)	)			09-JUN-05
1,4-Dichlorobenzene	< 0	.2 0.2	ug/L	
Dichlorodifluoromethane	< 1	.0 1.0	ug/L	
1,1-Dichloroethane	< 0	.2 0.2	ug/L	
1,2-Dichloroethane	< 0	.2 0.2	ug/L	
1,1-Dichloroethene	< 0	.5 0.5	ug/L	
cis-1,2-Dichloroethene	< 0	.2 0.2	ug/L	
trans-1,2-Dichloroethene	< 0	.1 0.1	ug/L	
Dichlorofluoromethane	< 0	.5 0.5	ug/L	
1,2-Dichloropropane	< 0	.2 0.2	ug/L	
1,3-Dichloropropane	< 0	.2 0.2	ug/L	
2,2-Dichloropropane	< 0	.5 0.5	ug/L	
1,1-Dichloropropene	< 0	.2 0.2	ug/L	
cis-1,3-Dichloropropene	< 0	.2 0.2	ug/L	
trans-1,3-Dichloropropene	< 0	.2 0.2	ug/L	
Ethylbenzene	< 0	.5 0.5	ug/L	
Ethyl ether	< 2	.0 2.0	ug/L	
Hexachlorobutadiene	< 1	.0 1.0	ug/L	
Isopropylbenzene	< 0	.5 0.5	ug/L	
p-Isopropyltoluene	< 0	.5 0.5	ug/L	
The spike recoveries for this	target analyte	did not meet the	OC acceptance	e criteria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride < 0.5 ug/L Methyl ethyl ketone (MEK) < 10 10 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 9 of 51

Samples: 200514574 - 200514584

1,1,2-Trichloroethane

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project Name		Sampled By
-	EDINA WELL EVALUATION	math	ew beckman
Sample No: <b>200514</b>	575 Receiving Comments: -		
Coll Date Co	ll Time Field No	Sampling	Point
06-JUN-2005	1645 p305	-	
Trip Blank F	rield Blank		
200514583	200514582		
******	***** SAMPLE RES	GULTS **********	*****
Unit: ORGANIC CH	EMISTRY Reviewed By PD	s on 16-Jun-05	
	Resul	t Rept Level Ur	uits Analysis Date
Note: Positive O	rganic Results are indicated		itts marysis bate
	-games Robotob des indesacod	2, BOES.	
68 VOCs in Water by GO	C/MS (Cont.)		09-JUN-05
Methyl isobutyl ket	one (MIBK) < 5.0	5.0	ug/L
The spike recove	eries for this target analyte d	id not meet the QC ac	ceptance criteria
	Since the recoveries showed a		
was not detected	d in the sample, the datum was	accepted without qual	ification.
Methyl tertiary buty	yl ether (MTBE) < 2.0	2.0	ıg/L
Naphthalene	1.0	1.0	ıg/L
n-Propylbenzene	< 0.5	0.5	ıg/L
The spike recove	eries for this target analyte d	id not meet the QC ac	ceptance criteria
	Since the recoveries showed a		
	d in the sample, the datum was		
Styrene	< 0.5	_	ıg/L
1,1,1,2-Tetrachloroe	ethane < 0.2	2 0.2	ıg/L
1,1,2,2-Tetrachloroe	ethane < 0.2	2 0.2 t	ig/L
The spike recove	ries for this target analyte d	id not meet the QC ac	ceptance criteria
	Since the recoveries showed a		
	l in the sample, the datum was		
Tetrachloroethene	< 0.2		ıq/L
Tetrahydrofuran (THE			1g/L
Toluene	< 0.5		ıg/L
1,2,3-Trichlorobenze			ıq/L
1,2,4-Trichlorobenze	=		ig/L
1,1,1-Trichloroethan			ig/L
	- 0.2	0.2	.g, D

< 0.2

ug/L

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 10 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDIN	A WELL EVALUAT	ION mathew beckman
ample No: 200	<b>514575</b> Receiv	ing Comments:	-
Coll Date 06-JUN-2005	Coll Time I	Field No	Sampling Point -
Trip Blank	Field Blank		
TITE DIGINI			

SAMPLE RESULTS

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)					09-JUN-05
Trichloroethene (TCE)	<	0.1	0.1	ug/L	
Trichlorofluoromethane	<	0.5	0.5	ug/L	
1,2,3-Trichloropropane	<	0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

1,3,5-Trimethylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

 Vinyl chloride
 < 0.2</td>
 0.2
 ug/L

 o-Xylene
 < 0.2</td>
 0.2
 ug/L

 p&m-Xylene
 < 0.3</td>
 0.3
 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL

Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Samples:

Date Generated: 24-JUN-2005

Request Page: 11 of 51

200514574 - 200514584

Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005

Site ID Project Name

EDINA WELL EVALUATION

mathew beckman

Sampled By

200514576 Receiving Comments: -Sample No:

Coll Date Coll Time Field No

p304

Sampling Point

06-JUN-2005

1545

Trip Blank 200514583

Field Blank 200514582

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Rept Level Units Result Analysis Date Note: Positive Organic Results are indicated by BOLD. 468 VOCs in Water by GC/MS 18-JUN-05 4-Bromofluorobenzene (surrogate) 80.2 70-130 1,2-Dichloroethane-D4 (surrogate) 91.2 70-130 % Dibromofluoromethane (surrogate) 111 70-130 Toluene-d8 (surrogate) 110 70-130 % Acetone 117 10 % Allyl chloride 91 2.5 % Benzene 102 1.0 % Bromobenzene 1.01 1.0 % Bromochloromethane 75 2.5 % Bromodichloromethane 89 1.0 % Bromoform 83 2.5 % Bromomethane 82 10 % n-Butylbenzene 149 2.5 sec-Butylbenzene 140 2.5 % tert-Butylbenzene 137 2.5 % Carbon tetrachloride 92 1.0 Chlorobenzene 118 1.0 % Chlorodibromomethane 111 2.5 % Chloroethane 101 2.5 % Chloroform 93 0.5 % Chloromethane 105 5.0 % 2-Chlorotoluene 132 2.5 % 4-Chlorotoluene 135 2.5 % 1,2-Dibromo-3-chloropropane (DBCP)

124

%

10

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 12 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

	Project Name	Sampled By
EDINA	WELL EVALUATION	M mathew beckman
<b>514576</b> Receivi	ing Comments: -	<del></del>
Coll Time F	ield No	Sampling Point -
Field Blank		
	EDINA 514576 Receive Coll Time F 1545	Coll Time Field No 1545 p304

Reviewed By PDS on 16-JUN-05

Unit: ORGANIC CHEMISTRY

Note: Positive Organic Results are indicated by BOLD.  468 VOCs in Water by GC/MS (Cont.)  1,2-Dibromoethane (EDB)  Dibromomethane  89  2.5  1,2-Dichlorobenzene  118  1.0  %		Result	Rept Level Un	its Analysis Date
1,2-Dibromoethane (EDB) 126 2.5 % Dibromomethane 89 2.5 % 1,2-Dichlorobenzene 118 1.0 %	Note: Positive Organic Resul	lts are indicated by	BOLD.	
1,2-Dibromoethane (EDB) 126 2.5 % Dibromomethane 89 2.5 % 1,2-Dichlorobenzene 118 1.0 %	468 VOCs in Water by GC/MS (Con	nt.)		18-JUN-05
Dibromomethane       89       2.5       %         1,2-Dichlorobenzene       118       1.0       %		126	2.5 %	
<b>-,-</b>	• •	89	2.5 %	
·	1,2-Dichlorobenzene	118	1.0 %	<b>.</b>
1,3-Dichioropenzene 130 1.0 %	1,3-Dichlorobenzene	130	1.0 %	<b>.</b>
1,4-Dichlorobenzene 117 1.0 %	1,4-Dichlorobenzene	117	1.0 %	
Dichlorodifluoromethane 92 10 %	Dichlorodifluoromethane	92	10 %	<b>.</b>
1,1-Dichloroethane 104 1.0 %	1,1-Dichloroethane	104	1.0 %	<b>i</b>
1,2-Dichloroethane 100 1.0 %	1,2-Dichloroethane	100	1.0 %	<b>.</b>
1,1-Dichloroethene 93 2.5 %	1,1-Dichloroethene	93	2.5 %	i
cis-1,2-Dichloroethene 94 1.0 %	cis-1,2-Dichloroethene	94	1.0 %	6
trans-1,2-Dichloroethene 93 0.5 %	trans-1,2-Dichloroethene	93	0.5 %	•
Dichlorofluoromethane 106 2.5 %	Dichlorofluoromethane	106	2.5 %	
1,2-Dichloropropane 108 1.0 %	1,2-Dichloropropane	108	1.0 %	ı
1,3-Dichloropropane 139 1.0 %	1,3-Dichloropropane	139	1.0 %	<b>;</b>
2,2-Dichloropropane 87 2.5 %	2,2-Dichloropropane	87	2.5 %	
1,1-Dichloropropene 95 1.0 %	1,1-Dichloropropene	95	1.0 %	•
cis-1,3-Dichloropropene 122 1.0 %	cis-1,3-Dichloropropene	122	1.0 %	•
trans-1,3-Dichloropropene 120 1.0 %	trans-1,3-Dichloropropene	120	1.0 %	,
Ethylbenzene 125 2.5 %	Ethylbenzene	125	2.5 %	
Ethyl ether 95 10 %	<del>-</del>	95	10 %	,
Hexachlorobutadiene 94 10 %	<del>-</del>	94	10 %	•
Isopropylbenzene 121 2.5 %	Isopropylbenzene	121	2.5 %	,
p-Isopropyltoluene 142 2.5 %		142	2.5 %	,
Methylene chloride 91 2.5 %		91		,

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 13 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005 Original Date Reported: 16-JUN-2005

Site ID

Project Name

Sampled By

EDINA WELL EVALUATION

mathew beckman

Sample No: 200514576 Receiving Comments: -

Coll Date Coll Time Field No

Sampling Point

06-JUN-2005

1545

p304

Trip Blank Field Blank

200514583 200514582

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by BO	DLD.		
468 VOCs in Water by GC/MS (Cont.)				18-JUN-05
Methyl ethyl ketone (MEK)	123	10	٥.	18-3011-05
		10	%	
Methyl isobutyl ketone (MIBK)	141	10	%	
Methyl tertiary butyl ether (MTBE)	104	10	%	
Naphthalene	125	5.0	%	
n-Propylbenzene	143	2.5	%	
Styrene	129	2.5	%	
1,1,1,2-Tetrachloroethane	112	1.0	%	
1,1,2,2-Tetrachloroethane	134	1.0	%	
Tetrachloroethene	78	1.0	%	
Tetrahydrofuran (THF)	118	10	%	
Toluene	128	2.5	%	
1,2,3-Trichlorobenzene	124	5.0	%	
1,2,4-Trichlorobenzene	106	2.5	%	
1,1,1-Trichloroethane	93	1.0	%	
1,1,2-Trichloroethane	130	1.0	%	
Trichloroethene (TCE)	85	0.5	%	
Trichlorofluoromethane	103	2.5	%	
1,2,3-Trichloropropane	125	2.5	%	
1,1,2-Trichlorotrifluoroethane	74	1.0	%	
1,2,4-Trimethylbenzene	146	2.5	%	
1,3,5-Trimethylbenzene	144	2.5	%	
Vinyl chloride	114	1.0	%	
o-Xylene	126	1.0	%	
p&m-Xylene	134	2.0	%	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 14 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name		Sampled By
-	EDII	NA WELL EVALU	ATION	mathew beckman
umple No: 200	<b>1514577</b> Receiv	ving Comments	· -	
Coll Date	Coll Time	Field No		Sampling Point
07-JUN-2005	1020	<b>p</b> 8		~
Trip Blank	Field Blank	ζ		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Note: Positive Organic Results are	Result indicated by B	Rept Level	Units	Analysis Date
468 VOCs in Water by GC/MS				09-JUN-05
4-Bromofluorobenzene (surrogate)	94.6	70-130	%	03-00N-03
1,2-Dichlorobenzene-D4 (surrogate)	129	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	0.5	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	
The spike recoveries for this targe	et analyte did no	t meet the QC	acceptano	ce criteria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 15 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Site ID Project			Sampled By		
-	EDIN	A WELL EVALUATION	л	mathew beckman		
Sample No: 20051	<b>4577</b> Receiv	ing Comments: -				
Coll Date C	Coll Time F	ield No	Sampli	ng Point		
07-JUN-2005	1020	p8		_		
Trip Blank	Field Blank					
200514583	200514582					
*******	******	****** SAMPLE RESULT	S ********	* * * * * * * * * *	*****	
Unit: ORGANIC C	HEMISTRY	Reviewed By PDS of	n <b>16-JUN-05</b>			
		Result	Rept Level	Units	Analysis Date	
Note: Positive	Organic Resu	lts are indicated by	BOLD.			
8 VOCs in Water by (	GC/MS (Cor	nt.)			09-JUN-05	
Chlorobenzene		< 0.2	0.2	ug/L		
Chlorodibromometha	ne	< 0.5	0.5	ug/L		
Chloroethane		< 0.5	0.5	ug/L		
Chloroform		< 0.1	0.1	ug/L		
Chloromethane		< 1.0	1.0	ug/L		
2-Chlorotoluene		< 0.5	0.5	ug/L		
		is target analyte did				
		ecoveries showed a pos				
	ed in the sam	ple, the datum was acc			n.	
4-Chlorotoluene		< 0.5	0.5	ug/L		
		is target analyte did:				
		ecoveries showed a pos				
		ple, the datum was acco			n.	
1,2-Dibromo-3-chlor			2.0	ug/L		
1,2-Dibromoethane Dibromomethane	(EDB)	< 0.5	0.5	ug/L		
		< 0.5	0.5	ug/L		
1,2-Dichlorobenzene		< 0.2	0.2	ug/L		
1,3-Dichlorobenzene 1,4-Dichlorobenzene		< 0.2	0.2	ug/L		
Dichlorodifluoromet		< 0.2	0.2	ug/L		
prontorogrammocowe		< 1.0	1.0	$\mathtt{ug}/\mathtt{L}$		
1 1 Diablamaathana						
1,1-Dichloroethane		< 0.2	0.2	ug/L		
1,1-Dichloroethane Peak present be 1,2-Dichloroethane	elow report le	< 0.2				

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 16 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Na	me	Samp	oled By	
-	ED	INA WELL EVA	LUATION	mathew	beckman	
mple No: 200	<b>514577</b> Rece	iving Commen	ts: -			
Coll Date 07-JUN-2005	Coll Time	Field No		Sampling Point	nt	

Trip Blank Field Blank
200514583 200514582

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by B	OLD.		
468 VOCs in Water by GC/MS (Cont.)				09-JUN-05
1,1-Dichloroethene	< 0.5	0.5	ug/L	
Peak present below report level				
cis-1,2-Dichloroethene	98	0.2	ug/L	
trans-1,2-Dichloroethene	23	0.1	ug/L	
Dichlorofluoromethane	< 0.5	0.5	ug/L	
Peak present below report level				
1,2-Dichloropropane	< 0.2	0.2	ug/L	
1,3-Dichloropropane	< 0.2	0.2	ug/L	
2,2-Dichloropropane	< 0.5	0.5	ug/L	
1,1-Dichloropropene	< 0.2	0.2	ug/L	
cis-1,3-Dichloropropene	< 0.2	0.2	ug/L	
trans-1,3-Dichloropropene	< 0.2	0.2	ug/L	
Ethylbenzene	< 0.5	0.5	ug/L	
Ethyl ether	< 2.0	2.0	ug/L	
Hexachlorobutadiene	< 1.0	1.0	ug/L	
Isopropylbenzene	< 0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
p-Isopropyltoluene	< 0.5	0.5	ug/L	
mb				o aritoria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride < 0.5 0.5 ug/L Methyl ethyl ketone (MEK) < 10 10 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Date Received: 08-JUN-2005 Program: PL Date Generated: 24-JUN-2005

Request Page: 17 of 51

Samples: 200514574 - 200514584

4

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

		ject Name		Sampled	ВУ
-	EDINA WI	ELL EVALUATION	m	athew beck	man
Sample No: 200514	577 Receiving	Comments: -		<del></del>	
Coll Date Co	ll Time Fiel	d No	Sampli	ng Point	
07-JUN-2005	1020	98		-	
Trip Blank I	Field Blank				
200514583	200514582				
		tttt clubic prome	~	to death death death death de	
******	*****	**** SAMPLE RESULTS	5 *******	****	* * * * * * * * *
Unit: ORGANIC CH	EMISTRY	Reviewed By PDS on	16-JUN-05		
Water Bandalan O		Result	Rept Level	Units	Analysis Date
Note: Positive U	rganic kesuits	are indicated by F	BOLD.		
VOCs in Water by G	C/MS (Cont.)				09-JUN-05
Methyl isobutyl ket	one (MIBK)	< 5.0	5.0	ug/L	
The spike recove	eries for this	target analyte did n	ot meet the QC	acceptance	e criteria
in the MS/MSD.	Since the reco	veries showed a posi	tive bias and	the target	analyte
was not detected	d in the sample	, the datum was acce	pted without q	ualificatio	on.
Methyl tertiary but	yl ether (MTBE)	< 2.0	2.0	ug/L	
37		. 1 0			
Naphthalene		< 1.0	1.0	ug/L	
n-Propylbenzene		< 0.5	1.0 0.5	ug/L ug/L	
n-Propylbenzene The spike recove		< 0.5 target analyte did n	0.5 ot meet the QC	ug/L acceptance	
n-Propylbenzene The spike recove in the MS/MSD.	Since the recov	< 0.5 carget analyte did n veries showed a posi	0.5 ot meet the QC tive bias and	ug/L acceptance the target	analyte
n-Propylbenzene The spike recove in the MS/MSD.	Since the recov	< 0.5 target analyte did n	0.5 ot meet the QC tive bias and	ug/L acceptance the target	analyte
n-Propylbenzene The spike recove in the MS/MSD. was not detected Styrene	Since the recover in the sample,	< 0.5 carget analyte did n veries showed a posi	0.5 ot meet the QC tive bias and	ug/L acceptance the target	analyte
n-Propylbenzene The spike recove in the MS/MSD. was not detected Styrene 1,1,1,2-Tetrachloroe	Since the recovery in the sample, ethane	<pre> &lt; 0.5 target analyte did n veries showed a posi the datum was acce  &lt; 0.5  &lt; 0.2</pre>	0.5 ot meet the QC tive bias and pted without q	ug/L acceptance the target ualification	analyte
n-Propylbenzene The spike recover in the MS/MSD. was not detected Styrene 1,1,2-Tetrachloroe 1,1,2,2-Tetrachloroe	Since the recovery in the sample, sethane sethane	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2	ug/L acceptance the target ualificatio ug/L ug/L ug/L	analyte on.
n-Propylbenzene The spike recove in the MS/MSD. was not detected Styrene 1,1,1,2-Tetrachloroe 1,1,2,2-Tetrachloroe The spike recove	Since the recovery of the sample, sethane sethane the series for this to the series for this the series for this the series for the series fo	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC	ug/L acceptance the target ualificatio ug/L ug/L ug/L acceptance	analyte on. e criteria
n-Propylbenzene The spike recove in the MS/MSD. was not detected Styrene 1,1,1,2-Tetrachloroe 1,1,2,2-Tetrachloroe The spike recove in the MS/MSD.	Since the recovery of in the sample, sethane ethane eries for this to since the recovery of the sethane eries for the recovery of the sethane eries for the recovery of the sethane the sethane eries for the recovery of the sethane eries for the recovery of the sethane eries for the seth	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC tive bias and	ug/L acceptance the target ualificatio ug/L ug/L ug/L acceptance the target	analyte on. e criteria analyte
n-Propylbenzene The spike recove in the MS/MSD. was not detected Styrene 1,1,1,2-Tetrachloroe 1,1,2,2-Tetrachloroe The spike recove in the MS/MSD.	Since the recovery of in the sample, sethane ethane eries for this to since the recovery of the sethane eries for the recovery of the sethane eries for the recovery of the sethane the sethane eries for the recovery of the sethane eries for the recovery of the sethane eries for the seth	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC tive bias and	ug/L acceptance the target ualificatio ug/L ug/L ug/L acceptance the target	analyte on. e criteria analyte
n-Propylbenzene The spike recover in the MS/MSD. was not detected Styrene 1,1,2,2-Tetrachlorous The spike recover in the MS/MSD. was not detected Tetrachloroethene	Since the recovery of in the sample, sethane extracted for this to Since the recovery of the sample, and the s	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC tive bias and	ug/L acceptance the target ualificatio ug/L ug/L ug/L acceptance the target	analyte on. e criteria analyte
n-Propylbenzene The spike recover in the MS/MSD. was not detected Styrene 1,1,1,2-Tetrachloroe 1,1,2,2-Tetrachloroe The spike recover in the MS/MSD. was not detected Tetrachloroethene Tetrahydrofuran (THE	Since the recovery of in the sample, sethane extrans for this to Since the recovery of the sample, and the sam	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC tive bias and	ug/L acceptance the target ualificatio ug/L ug/L ug/L acceptance the target	analyte on. e criteria analyte
n-Propylbenzene The spike recover in the MS/MSD. was not detected styrene 1,1,1,2-Tetrachlorous 1,1,2,2-Tetrachlorous The spike recover in the MS/MSD. was not detected Tetrachloroushene Tetrahydrofuran (THE Toluene	Since the recovery of in the sample, sethane ethane eries for this to Since the recovery of in the sample,	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC tive bias and pted without qu 0.2	ug/L acceptance the target ualificatio ug/L ug/L ug/L acceptance the target ualificatio ug/L	analyte on. e criteria analyte
n-Propylbenzene The spike recover in the MS/MSD. was not detected Styrene 1,1,1,2-Tetrachlorous 1,1,2,2-Tetrachlorous The spike recover in the MS/MSD. was not detected Tetrachlorous Tetrachlorous Tetrachlorous Toluene 1,2,3-Trichlorobenze	Since the recovery distribution of the sample, sethane eries for this to Since the recovery distribution of the sample, sethane eries for this to Since the sample, sethane eries for the sample	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC tive bias and pted without q 0.2 10	ug/L acceptance the target ualification ug/L ug/L ug/L acceptance the target ualification ug/L ug/L	analyte on. e criteria analyte
n-Propylbenzene The spike recover in the MS/MSD. was not detected Styrene 1,1,1,2-Tetrachlorous 1,1,2,2-Tetrachlorous The spike recover in the MS/MSD. was not detected Tetrachlorous	Since the recovery of in the sample, sethane extrans for this to Since the recovery of in the sample, sethane extransity of the sample extransity of the sam	<pre></pre>	0.5 of meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC tive bias and pted without q 0.2 10 0.5	ug/L acceptance the target ualification ug/L ug/L acceptance the target ualification ug/L ug/L ug/L ug/L ug/L	analyte on. e criteria analyte
n-Propylbenzene The spike recover in the MS/MSD. was not detected Styrene 1,1,1,2-Tetrachlorous 1,1,2,2-Tetrachlorous The spike recover in the MS/MSD. was not detected Tetrachloroushene Tetrahydrofuran (THE Toluene 1,2,3-Trichlorobenze	Since the recovery of in the sample, sethane extrans for this to Since the recovery of in the sample, sethane extransity.	<pre></pre>	0.5 ot meet the QC tive bias and pted without q 0.5 0.2 0.2 ot meet the QC tive bias and pted without qu 0.2 10 0.5 1.0	ug/L acceptance the target ualification ug/L ug/L acceptance the target ualification ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	analyte on. e criteria analyte

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 18 of 51

09-JUN-05

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID_		Project N	ame	Sampled By
-	EDI	NA WELL EV.	ALUATION	mathew beckman
ample No: 200	<b>514577</b> Receiv	ving Comme	nts: -	
Coll Date	Coll Time	<u>Field N</u> o		Sampling Point
07-JUN-2005	1020	8q		-
Trip Blank	Field Blank	:		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont	.)			
Trichloroethene (TCE)	23	0.1	ug/L	
Trichlorofluoromethane	< 0.5	0.5	ug/L	
1,2,3-Trichloropropane	< 0.5	0.5	ug/L	
1,1,2-Trichlorotrifluoroethane	< 0.2	0.2	ug/L	
1,2,4-Trimethylbenzene	< 0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

1,3,5-Trimethylbenzene < 0.5 0.5 ug/I

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Vinyl chloride		6.2	0.2	ug/L
o-Xylene	<	0.2	0.2	ug/L
p&m-Xylene	<	0.3	0.3	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Project Name

Site ID

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 19 of 51

Acquest rage.

Samples: 200514574 - 200514584 Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Sampled By

	EDINA WELL EVALUATION			m	mathew beckman		
Sample No: 200	<b>514578</b> Rece	iving Commer	nts: -				
Coll Date	Coll Time	Field No		Sampli	ng Point		
07-JUN-2005	1440	p112			-		
Trip Blank	Field Bla	nk					
200514583	20051458	2					
* * * * * * *	*****	****** SZ	AMPLE RESULT:	S *********	******	****	
Unit: ORGANIC	CHEMISTRY	Review	ved By <b>PDS</b> on	16-JUN-05			
			Result	Rept Level	Units	Analysis D	
No. 6	o Organia Pa	eulte are ir	adiastod by E	_	<b></b>		
Note: Positiv	e organic ve	BUTTO OTO II	iurcaceu by r	OUD.			
	_	suics are in	idicated by i	OLD.			
VOCs in Water b	y GC/MS				0.	09-JUN-	
VOCs in Water b	y GC/MS nzene (surroga	ite)	95.2	70-130	%	09-JUN-	
VOCs in Water b 4-Bromofluorober 1,2-Dichloroben	y GC/MS nzene (surroga	ite)	95.2 126	70-130 70-130	%	09-JUN-	
VOCs in Water b 4-Bromofluorober 1,2-Dichloroben Acetone	y GC/MS nzene (surroga	ite)	95.2 126 < 20	<b>70-130 70-130</b> 20	% ug/L	09-JUN-	
VOCs in Water b 4-Bromofluorober 1,2-Dichloroben	y GC/MS nzene (surroga	ite)	95.2 126 < 20 < 0.5	70-130 70-130 20 0.5	% ug/L ug/L	09-JUN-	
VOCs in Water b 4-Bromofluorobenz 1,2-Dichlorobenz Acetone Allyl chloride	y GC/MS nzene (surroga	ite)	95.2 126 < 20	70-130 70-130 20 0.5 0.2	% ug/L ug/L ug/L	09-JUN-	
VOCs in Water b 4-Bromofluorobenz 1,2-Dichlorobenz Acetone Allyl chloride Benzene	y GC/MS zene (surroga ene-D4 (surro	ite)	95.2 126 < 20 < 0.5 0.3	70-130 70-130 20 0.5 0.2	% ug/L ug/L ug/L ug/L	09-JUN-	
VOCs in Water b 4-Bromofluorobenz 1,2-Dichlorobenz Acetone Allyl chloride Benzene Bromobenzene	y GC/MS nzene (surroga zene-D4 (surro	ite)	95.2 126 < 20 < 0.5 0.3 < 0.2	70-130 70-130 20 0.5 0.2	% ug/L ug/L ug/L ug/L ug/L	09-JUN-	
VOCs in Water b 4-Bromofluorober 1,2-Dichlorober Acetone Allyl chloride Benzene Bromobenzene Bromochlorometha	y GC/MS nzene (surroga zene-D4 (surro	ite)	95.2 126 < 20 < 0.5 0.3 < 0.2 < 0.5	70-130 70-130 20 0.5 0.2 0.2	% ug/L ug/L ug/L ug/L ug/L ug/L	09-JUN-	
VOCs in Water b 4-Bromofluorober 1,2-Dichlorober Acetone Allyl chloride Benzene Bromobenzene Bromochlorometha Bromodichloromet	y GC/MS nzene (surroga zene-D4 (surro	ite)	95.2 126 < 20 < 0.5 0.3 < 0.2 < 0.5 < 0.2	70-130 70-130 20 0.5 0.2 0.2 0.5 0.2	% ug/L ug/L ug/L ug/L ug/L ug/L ug/L	09-JUN-	
VOCs in Water b 4-Bromofluorober 1,2-Dichlorober Acetone Allyl chloride Benzene Bromobenzene Bromochlorometha Bromodichloromet Bromoform	y GC/MS nzene (surroga zene-D4 (surro	ite)	95.2 126 < 20 < 0.5 0.3 < 0.2 < 0.5 < 0.5	70-130 70-130 20 0.5 0.2 0.2 0.5 0.2	% ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	09-JUN-	
VOCs in Water be 4-Bromofluorober 1,2-Dichlorober Acetone Allyl chloride Benzene Bromobenzene Bromochlorometha Bromodichloromet Bromoform Bromomethane n-Butylbenzene	y GC/MS nzene (surroga nene-D4 (surro	ute) ogate)	95.2 126 < 20 < 0.5 0.3 < 0.2 < 0.5 < 0.5 < 1.0 < 0.5	70-130 70-130 20 0.5 0.2 0.5 0.2 0.5 1.0	% ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L		
VOCs in Water b 4-Bromofluorober 1,2-Dichlorober Acetone Allyl chloride Benzene Bromobenzene Bromochlorometha Bromodichloromet Bromoform Bromomethane n-Butylbenzene The spike re	y GC/MS  nzene (surroga  nene-D4 (surro  nne  chane	tte)  ogate)  this target	95.2 126 < 20 < 0.5 0.3 < 0.2 < 0.5 < 0.2 < 0.5 < 1.0 < 0.5	70-130 70-130 20 0.5 0.2 0.5 0.2 0.5 1.0 0.5	% ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria	
VOCs in Water b 4-Bromofluorober 1,2-Dichlorober Acetone Allyl chloride Benzene Bromobenzene Bromochlorometha Bromodichloromet Bromoform Bromomethane n-Butylbenzene The spike re in the MS/MS	y GC/MS  nzene (surroga  ne chane  coveries for  D. Since the	this target a recoveries	95.2 126 < 20 < 0.5 0.3 < 0.2 < 0.5 < 0.2 < 0.5 < 1.0 < 0.5 analyte did n	70-130 70-130 20 0.5 0.2 0.5 0.2 0.5 1.0 0.5 ot meet the QC	% ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte	
VOCs in Water b 4-Bromofluorober 1,2-Dichlorober Acetone Allyl chloride Benzene Bromobenzene Bromochlorometha Bromodichloromet Bromoform Bromomethane n-Butylbenzene The spike re in the MS/MS	y GC/MS  nzene (surroga  ne  chane  coveries for  D. Since the  cted in the s	this target a recoveries	95.2 126 < 20 < 0.5 0.3 < 0.2 < 0.5 < 0.2 < 0.5 < 1.0 < 0.5 analyte did n	70-130 70-130 20 0.5 0.2 0.5 0.2 0.5 1.0 0.5	% ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	e criteria analyte	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 20 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDIN	A WELL EVALUATION	mathew beckman
mple No: 200	<b>514578</b> Receiv	ing Comments: -	
Coll Date	Coll Time I	Field No	Sampling Point
07-JUN-2005	1440	p112	-
	n' . 1 a p1 l.		
Trip Blank	Field Blank		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are		-		
468 VOCs in Water by GC/MS (Cont.)				09-JUN-05
Chlorobenzene	< 0.2	0.2	ug/L	
Chlorodibromomethane	< 0.5	0.5	ug/L	
Chloroethane	< 0.5	0.5	ug/L	
Chloroform	< 0.1	0.1	ug/L	
Chloromethane	< 1.0	1.0	ug/L	
2-Chlorotoluene	< 0.5	0.5	ug/L	
The spike recoveries for this targe	t analyte did not	meet the QC	acceptance	e criteria
in the MS/MSD. Since the recoverie	s showed a positi	ve bias and	the target	analyte
was not detected in the sample, the	datum was accept	ed without qu	alificati	on.
4-Chlorotoluene	< 0.5	0.5	ug/L	
The spike recoveries for this targe	t analyte did not	meet the QC	acceptance	e criteria
in the MS/MSD. Since the recoverie				
was not detected in the sample, the	datum was accept	ed without qu	alification	on.
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0	ug/L	
1,2-Dibromoethane (EDB)	< 0.5	0.5	ug/L	
Dibromomethane	< 0.5	0.5	ug/L	
1,2-Dichlorobenzene	< 0.2	0.2	ug/L	
1,3-Dichlorobenzene	< 0.2	0.2	ug/L	

1,1-Dichloroethene		0.6	0.5	ug/L
1,2-Dichloroethane		0.3	0.2	ug/L
1,1-Dichloroethane	<	0.2	0.2	ug/L
Dichlorodifluoromethane	<	1.0	1.0	ug/L
1,4-Dichlorobenzene	<	0.2	0.2	ug/L
1,3-Dichlorobenzene	<	0.2	0.2	ug/L
1,2-Dichlorobenzene	<	0.2	0.2	ug/L
Dibromomethane	<	0.5	0.5	ug/L
1,2-Dibromoethane (EDB)	<	0.5	0.5	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	<	2.0	2.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 21 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Rept Level Units

Analysis Date

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
Sample No: 200	<b>9514578</b> Recei	ving Comments: -	
Coll Date 07-JUN-2005	Coll Time 1440	Field No	Sampling Point
Trip Blank	Field Blan	k	
200514583	200514582		

Unit: ORGANIC CHEMISTRY Review

Reviewed By PDS on 16-JUN-05

Result

			_	•	· · · · ·
Note: Positive Organic Results	are indicat	ed by BO	LD.		
468 VOCs in Water by GC/MS (Cont.)					09-JUN-05
cis-1,2-Dichloroethene		2.6	0.2	ug/L	
trans-1,2-Dichloroethene	<	0.1	0.1	ug/L	
Dichlorofluoromethane	<	0.5	0.5	ug/L	
1,2-Dichloropropane	<	0.2	0.2	ug/L	
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene	<	0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene	<	0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	$\mathtt{ug}/\mathtt{L}$	
Isopropylbenzene	<	0.5	0.5	$\mathtt{ug}/\mathtt{L}$	
p-Isopropyltoluene	<	0.5	0.5	ug/L	
m) !1	_				

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 22 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Na	me		Sampled	Ву
-	ED	INA WELL EVA	LUATION	m	athew bec	kman
Sample No: 2005	514578 Rece	iving Commen	ts: -			
Coll Date	Coll Time	Field No		Sampli	ng Point	
07-JUN-2005	1440	p112			-	
Trip Blank	Field Blar	nk				
200514583	200514582	2				
******		********* SA			*****	****
******	************		MPLE RESULT		*****	*****
******					**************************************	******** Analysis Date
******	CHEMISTRY	Review	ed By PDS or Result	n 16-JUN-05 Rept Level		
**************************************	CHEMISTRY  Organic Re	Review	ed By PDS or Result	n 16-JUN-05 Rept Level		
********** Unit: ORGANIC  Note: Positive	CHEMISTRY  Organic Re	Review sults are in	ed By PDS or Result	n 16-JUN-05 Rept Level		Analysis Date
********  Unit: ORGANIC  Note: Positive  68 VOCs in Water by	CHEMISTRY  Organic Re	Review sults are in	ed By PDS on Result	Rept Level	Units	Analysis Date

in the MS/MSD. Since the recoveries showed a positive bias and the target analwas not detected in the sample, the datum was accepted without qualification. < 0.5 0.5 ug/L

Styrene	<	0.5	0.5	ug/L
1,1,1,2-Tetrachloroethane	<	0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	<	0.2	0.2	ug/L

<	0.2	0.2	ug/L
<	10	10	ug/L
<	0.5	0.5	ug/L
<	1.0	1.0	ug/L
<	0.5	0.5	ug/L
<	0.2	0.2	ug/L
<	0.2	0.2	ug/L
	0.3	0.1	ug/L
<	0.5	0.5	ug/L
<	0.5	0.5	ug/L
<	0.2	0.2	ug/L
	< < < < < < < < < < < < < < < < < < <	< 0.5 < 1.0 < 0.5 < 0.2 < 0.2 < 0.3 < 0.5 < 0.5	< 10 10   < 0.5   < 1.0   < 0.5   < 1.0   < 0.5   < 0.2   < 0.2   < 0.2   < 0.2   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.5   < 0.

Amended Report - Client Copy - Report Of Analytical Results

Date Received: 08-JUN-2005 Program: PL

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 23 of 51

200514574 - 200514584 Samples:

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project N	ame	Sampled By
-	ED	INA WELL EVA	ALUATION	mathew beckman
mple No: 200	)514578 Rece	iving Commen	nts: -	
Coll Date	Coll Time	Field No		Sampling Point
Coll Date 07-JUN-2005	Coll Time 1440	Field No		Sampling Point -
		p112		Sampling Point -

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.) 09-JUN-05

1,2,4-Trimethylbenzene

< 0.5

0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the  ${\it MS/MSD}$ . Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

1,3,5-Trimethylbenzene

< 0.5

0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the  ${\it MS/MSD}$ . Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Vinyl chloride 3.5 0.2 o-Xylene < 0.2 0.2 ug/L p&m-Xylene < 0.3 0.3 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 24 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	P	roject Name	Sampled By
-	EDINA	WELL EVALUATION	mathew beckman
mple No: 200	<b>514579</b> Receivi	ng Comments: -	
Coll Date 07-JUN-2005	Coll Time Fi	p113	Sampling Point
Trip Blank	Field Blank		

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive Organic Regults are indicated by ROLD

8 VOCs in Water by GC/MS					09-JUN-05
4-Bromofluorobenzene (surrogate)		96.5	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)		128	70-130	%	
Acetone	<	20	20	ug/L	
Allyl chloride	<	0.5	0.5	ug/L	
Benzene		0.4	0.2	ug/L	
Bromobenzene	<	0.2	0.2	ug/L	
Bromochloromethane	<	0.5	0.5	ug/L	
Bromodichloromethane	<	0.2	0.2	ug/L	
Bromoform	<	0.5	0.5	ug/L	
Bromomethane	<	1.0	1.0	ug/L	
n-Butylbenzene	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 0.5 0.5 tert-Butylbenzene

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 0.2 0.2 Carbon tetrachloride ua/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 25 of 51

Samples: 200514574 ~ 200514584

1,2-Dichloroethane

1,1-Dichloroethene

Date Reported: 24-JUN-2005

Samples:	200514574 -	- 200514584	Or:	iginal			ted: <b>24-J</b> l: <b>16-JUN-</b>		
Site ID		Project Na	ıme				Sample	d By	
-	EDI	NA WELL EVA	LUATI	ON		π	athew bec	kman	
Sample No: 200	) <b>514579</b> Recei	lving Commen	ıts:	<del>-</del>					
Coll Date	Coll Time	Field No				Sampli	ng Point		
07-JUN-2005	<b>154</b> 5	p113					-		
Trip Blank	Field Blan	k							
200514583	200514582								
*****	* * * * * * * * * * * * *	***** SI	MPLE	RESULTS	3 ****	*****	*****	*****	
Unit: ORGANIC	C CHEMISTRY	Review	ed By	PDS on	16-JUN	<b>1</b> -05			
				_		_		_	
				sult	-	Level	Units	Analysis	3 Date
Note: Positiv	e Organic Res	sults are in	dicat	ed by B	BOLD.				
VOCs in Water h	ov GC/MS (C	ont.)						ΛΩ TI	JN-05
Chlorobenzene	by GC/Mb (C	.011017	<	0.2		0.2	ug/L	09-00	714-03
Chlorodibromome	thane		<	0.5		0.5	ug/L		
Chloroethane			<	0.5		0.5	ug/L		
Chloroform			<	0.1		0.1	ug/L		
Chloromethane			<	1.0		1.0	ug/L		
2-Chlorotoluene			<	0.5		0.5	ug/L		
The spike re	coveries for	this target a	analyt	e did n	ot meet	the QC	acceptano	ce criteria	
	D. Since the								
	ected in the sa								
4-Chlorotoluene			<	0.5		0.5	$\mathtt{ug}/\mathtt{L}$		
The spike re	coveries for t	this target a	analyt	e did n	ot meet	the QC	acceptano	ce criteria	
	D. Since the								
	cted in the sa								
1,2-Dibromo-3-ch	nloropropane (I	BCP)	<	2.0		2.0	ug/L		
1,2-Dibromoethar	ne (EDB)		<	0.5		0.5	ug/L		
Dibromomethane			<	0.5		0.5	ug/L		
1,2-Dichlorobena	zene		<	0.2		0.2	ug/L		
1,3-Dichlorobenz			<	0.2		0.2	ug/L		
1,4-Dichlorobenz			<	0.2		0.2	ug/L		
Dichlorodifluoro			<	1.0		1.0	ug/L		
1,1-Dichloroetha	ane		<	0.2		0.2	ug/L		

0.3

0.9

ug/L

ug/L

0.2

0.5

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005 Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 26 of 51

200514574 - 200514584 Samples:

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name S		
-	EDI	NA WELL EVA	LUATION	mathew beckman
mple No: 200	<b>514579</b> Recei	ving Commen	nts: -	
Coll Date	Coll Time	Field No		Sampling Point
07-JUN-2005	1545	p113		-
- ' 1	Field Blan	k		
Trip Blank	TICIA DIAM			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organic Results	are indicat	ed by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)					09-JUN-05
cis-1,2-Dichloroethene		3.5	0.2	ug/L	
trans-1,2-Dichloroethene	<	0.1	0.1	ug/L	
Dichlorofluoromethane	<	0.5	0.5	ug/L	
1,2-Dichloropropane	<	0.2	0.2	ug/L	
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene	<	0.5	0.5	ug/L	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	ug/L	
Isopropylbenzene	<	0.5	0.5	ug/L	
p-Isopropyltoluene	<	0.5	0.5	ug/L	
The spike recoveries for this ta	arget analyt	e did r	not meet the OC	accontanc	a gritoria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 27 of 51

\_\_\_\_\_

200514574 - 200514584

Samples:

1,1,2-Trichlorotrifluoroethane

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID					Sampled	
-	មហ	INA WELL EVA	LUATION	n	mathew bec	cman
Sample No: 200	) <b>514579</b> Rece	iving Commen	its: -			
Coll Date	Coll Time	Field No		Sampli	ng Point	
07-JUN-2005	1545	p113			-	
Trip Blank	Field Bla	nk				
200514583	20051458	2				
*****	******	***** SI	AMPLE RESULT	S *******	*****	****
Unit: ORGANIC	C CHEMISTRY	Review	ed By <b>PDS</b> or	16-JUN-05		
			Result	Rept Level	Units	Analysis Date
Note: Positiv	ve Organic Re	sults are in	dicated by	BOLD.	<b>7</b>	•
.68 VOCs in Water b	or CC/MC /	Cont.)				00 7777 05
Methyl tertiary	-		< 2.0	2.0	ug/L	09-JUN-05
Naphthalene	~~~,1 ~~,1	,	< 1.0	1.0	ug/L	
n-Propylbenzene			< 0.5	0.5	ug/L	
		this target a	analvte did r	ot meet the QC	=	e criteria
in the MS/MS				tive bias and		
was not dete			_	pted without o		-
Styrene		• ,	< 0.5	0.5	ug/L	
1,1,1,2-Tetrach	loroethane		< 0.2	0.2	ug/L	
1,1,2,2-Tetrach	loroethane		< 0.2	0.2	ug/L	
The spike re	coveries for	this target a	analyte did n	ot meet the QC	acceptance	e criteria
				tive bias and		
				pted without q		
Tetrachloroether	ne		< 0.2	0.2	ug/L	
Tetrahydrofuran	(THF)		< 10	10	ug/L	
Toluene			< 0.5	0.5	ug/L	
1,2,3-Trichlorob	penzene		< 1.0	1.0	ug/L	
1,2,4-Trichlorob	oenzene	•	< 0.5	0.5	ug/L	
1,1,1-Trichloroe	ethane		< 0.2	0.2	ug/L	
1,1,2-Trichloroe	ethane		< 0.2	0.2	ug/L	
Trichloroethene	(TCE)		0.4	0.1	ug/L	
Trichlorofluorom	nethane		< 0.5	0.5	ug/L	
1,2,3-Trichlorop	ropane		< 0.5	0.5	ug/L	
	_				<del>-</del> '	

< 0.2

ug/L

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 28 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514579 Receiving Comments: -Coll Date Coll Time Field No Sampling Point 07-JUN-2005 1545 p113 Trip Blank Field Blank 200514583 200514582

Unit: ORGANIC CHEMISTRY

Reviewed By  ${\tt PDS}$  on  ${\tt 16-JUN-05}$ 

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)

09-JUN-05

1,2,4-Trimethylbenzene

< 0.5

0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

1,3,5-Trimethylbenzene

< 0.5

0.5 ug

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

 Vinyl chloride
 4.7
 0.2
 ug/L

 o-Xylene
 < 0.2</td>
 0.2
 ug/L

 p&m-Xylene
 < 0.3</td>
 0.3
 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 29 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project Name				Sampled By			
-	EDI	NA WELL EVA	LUATION	m	athew	beckman		
Sample No: 2005	<b>14580</b> Recei	ving Commer	its: -	<del></del>				
Coll Date	Coll Time	Field No		Sampli	na Poi:	nt		
07-JUN-2005	1545	p58		Damp 2 22	-			
Trip Blank	Field Blan	k						
200514583	200514582							
******	*****	*****	אאטו ב סבפוויתי	3 *********	*****	****		
Unit: ORGANIC	CHEMISTRY	Review	ed By <b>PDS</b> on					
			Result	Rept Level	Units	Analysis Date		
Note: Positive	Organic Kei	sults are in	dicated by E	OLD.				
VOCs in Water by	GC/MS					09-JUN-05		
4-Bromofluorobenz			97.8	70-130	%			
1,2-Dichlorobenze	ene-D4 (surrog	gate)	128	70-130	%			
Acetone			< 20	20	ug/I	,		
Allyl chloride			< 0.5	0.5	ug/I			
Benzene			< 0.2	0.2	ug/I			
Bromobenzene			< 0.2	0.2	ug/I			
Bromochloromethar			< 0.5	0.5	ug/I	_		
Bromodichlorometh	nane		< 0.2	0.2	ug/I			
Bromoform			< 0.5	0.5	ug/I			
Bromomethane			< 1.0	1.0	ug/I			
n-Butylbenzene			< 0.5	0.5	ug/I			
						tance criteria		
				tive bias and		_		
	ted in the sa	ample, the da		oted without q				
sec-Butylbenzene			< 0.5	0.5	ug/I			
						tance criteria		
in the MS/MSD				tive bias and				
		imple, the da	atum was accep	pted without q	ualifi	cation.		
tert-Butylbenzene			< 0.5	0.5	ug/L			
	overies for t	his target a	analyte did no	ot meet the QC	accept	tance criteria		
The spike rec								
The spike rec		recoveries s	showed a posit	cive bias and	the tai	rget analyte		
in the MS/MSD	. Since the			cive bias and opted without qu				

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 30 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	D Project Name Sampled				
-	ED]	NA WELL EVALUA	TION mathew beckman		
mple No: 200	<b>9514580</b> Recei	iving Comments:	<del>-</del>		
Coll Date	Coll Time	Field No	Sampling Point		
07-JUN-2005	1545	p58	-		
Trip Blank	Field Blan	ık			
TTTP DIGITO					

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results ar	e indicated by	BOLD.		
468 VOCs in Water by GC/MS (Cont.)				09-JUN-05
Chlorobenzene	< 0.2	0.2	ug/L	
Chlorodibromomethane	< 0.5	0.5	ug/L	
Chloroethane	< 0.5	0.5	ug/L	
Chloroform	< 0.1	0.1	ug/L	
Chloromethane	< 1.0	1.0	ug/L	
2-Chlorotoluene	< 0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 0.5 0.5 4-Chlorotoluene

1,2-Dibromo-3-chloropropane (DB	BCP) <	2.0	2.0	ug/L
1,2-Dibromoethane (EDB)	<	0.5	0.5	ug/L
Dibromomethane	<	0.5	0.5	ug/L
1,2-Dichlorobenzene	<	0.2	0.2	ug/L
1,3-Dichlorobenzene	<	0.2	0.2	ug/L
1,4-Dichlorobenzene	<	0.2	0.2	ug/L
Dichlorodifluoromethane	<	1.0	1.0	$\mathtt{ug}/\mathtt{L}$
1,1-Dichloroethane	<	0.2	0.2	ug/L
1,2-Dichloroethane	<	0.2	0.2	$\mathtt{ug}/\mathtt{L}$
1,1-Dichloroethene	<	0.5	0.5	$\mathtt{ug}/\mathtt{L}$

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 31 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Nam	ne	Sampled By
-	EDIN	A WELL EVAL	UATION	mathew beckman
ample No: 200	<b>514580</b> Receiv	ring Comment	s: <del>-</del>	
Coll Date 07-JUN-2005	Coll Time :	Field No p58		Sampling Point
	m' . 1 1 m1 1			
Trip Blank	Field Blank			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Note: Positive Organic Results are	Resu indicate		Rept Level D.	Units	Analysis Date
468 VOCs in Water by GC/MS (Cont.)					09-JUN-05
cis-1,2-Dichloroethene	< 0	).2	0.2	ug/L	
trans-1,2-Dichloroethene	< 0	).1	0.1	ug/L	
Dichlorofluoromethane	< 0	).5	0.5	ug/L	
1,2-Dichloropropane	< 0	.2	0.2	ug/L	
1,3-Dichloropropane	< 0	.2	0.2	ug/L	
2,2-Dichloropropane	< 0	1.5	0.5	ug/L	
1,1-Dichloropropene	< 0	.2	0.2	ug/L	
cis-1,3-Dichloropropene	< 0	.2	0.2	ug/L	
trans-1,3-Dichloropropene	< 0	. 2	0.2	ug/L	
Ethylbenzene	< 0	.5	0.5	ug/L	
Ethyl ether	< 2	.0	2.0	ug/L	
Hexachlorobutadiene	< 1	.0	1.0	ug/L	
Isopropylbenzene	< 0	.5	0.5	ug/L	
p-Isopropyltoluene	< 0	. 5	0.5	ug/L	
The spike recoveries for this target	analvte	did not	meet the OC	acceptance	criteria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

	_		-
Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Request Page: 32 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

	Project Na	ıme	Sampled By
EDI	EDINA WELL EVALUATION		mathew beckman
<b>514580</b> Recei	ving Commen	ts: -	<u> </u>
Coll Time 1545	Field No		Sampling Point
Field Blan	k		
	514580 Recei  Coll Time  1545	EDINA WELL EVA  514580 Receiving Commen  Coll Time Field No	Coll Time Field No 1545 p58

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)				09-JUN-05
Methyl tertiary butyl ether (MTBE)	< 2.0	2.0	$\mathtt{ug}/\mathtt{L}$	
Naphthalene	< 1.0	1.0	ug/L	
n-Propylbenzene	< 0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene	<	0.5	0.5	ug/L
1,1,1,2-Tetrachloroethane	<	0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	<	0.2	0.2	ug/L

Tetrachloroethene	<	0.2	0.2	ug/L
Tetrahydrofuran (THF)	<	10	10	ug/L
Toluene	<	0.5	0.5	ug/L
1,2,3-Trichlorobenzene	<	1.0	1.0	ug/L
1,2,4-Trichlorobenzene	<	0.5	0.5	$\mathtt{ug}/\mathtt{L}$
1,1,1-Trichloroethane	<	0.2	0.2	ug/L
1,1,2-Trichloroethane	<	0.2	0.2	$\mathtt{ug}/\mathtt{L}$
Trichloroethene (TCE)	<	0.1	0.1	ug/L
Trichlorofluoromethane	<	0.5	0.5	ug/L
1,2,3-Trichloropropane	<	0.5	0.5	ug/L
1,1,2-Trichlorotrifluoroethane	<	0.2	0.2	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005 Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 33 of 51

200514574 - 200514584 Samples:

o-Xylene

p&m-Xylene

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Proje	ect Name		Sampled	Ву
-	EDINA WEL	L EVALUATION	n	athew beckm	nan
Sample No: 200	514580 Receiving C	comments: -			
Coll Date	Coll Time Field	No	Sampli	ng Point	
07-JUN-2005	1545 p58	3		-	
Trip Blank	Field Blank				
200514583	200514582				
*****	*****	*** SAMPLE RESUL	TS ********	*****	*****
Unit: ORGANIC	CHEMISTRY R	eviewed By <b>PDS</b> (	on <b>16-Jun-05</b>		
		Result	Rept Level	Units	Analysis Date
Note: Positive	e Organic Results a	re indicated by	BOLD.		
468 VOCs in Water b	y GC/MS (Cont.)				09-JUN-05
1,2,4-Trimethylb	_	< 0.5	0.5	ug/L	.,
The spike re	coveries for this ta	rget analyte did	not meet the QC	acceptance	criteria
in the MS/MS	D. Since the recove	ries showed a po	sitive bias and	the target a	analyte
was not detec	cted in the sample,	the datum was ac	cepted without o	qualification	n.
1,3,5-Trimethylb	enzene	< 0.5	0.5	ug/L	
The spike red	coveries for this ta	rget analyte did	not meet the QC	acceptance	criteria
in the MS/MSI	O. Since the recove	ries showed a pos	sitive bias and	the target a	analyte
was not detec	cted in the sample,	the datum was acc	cepted without q	qualification	n.
Vinyl chloride		< 0.2	0.2	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

0.2

0.3

0.2

0.3

ug/L

ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 34 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
mple No: 200	<b>1514581</b> Recei	ving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
08-JUN-2005	1015	<b>p</b> 9	-
Trip Blank	Field Blan	k	

Unit: ORGANIC CHEMISTRY Reviewed By PDs on 16-JUN-05

Result Rept Level Units Analysis Date

Note: Positive	Organic Results are	e indicated by BOLD.	
468 VOCs in Water by	GC/MS	09	-JUN-05

4-Bromofluorobenzene (surrogate)		95.4	70-130	%
1,2-Dichlorobenzene-D4 (surrogate)		126	70-130	%
Acetone	<	20	20	ug/L
Allyl chloride	<	0.5	0.5	ug/L
Benzene	<	0.2	0.2	ug/L
Bromobenzene	<	0.2	0.2	ug/L
Bromochloromethane	<	0.5	0.5	ug/L
Bromodichloromethane	<	0.2	0.2	ug/L
Bromoform	<	0.5	0.5	ug/L
Bromomethane	<	1.0	1.0	ug/L
n-Butylbenzene	<	0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene < 0.5 0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 35 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name		Project Name Sample		Project Name Sampled By		Project Name Sampled By		Project Name		Project Name		Project Name		me Sampled By		
-	EDINA WELL EVALUAT		UATION mathew beckman															
mple No: 200	) <b>514581</b> Receiv	ving Comment	s: -															
Coll Date	Coll Time	Field No		Sampling Point														
08-JUN-2005	1015	<b>p</b> 9		-														
Trip Blank	Field Blank	τ																

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

		Result	Rept Level	Units	Analysis Date
Note: Positive Organ	ic Results are	indicated by	BOLD.		
468 VOCs in Water by GC/MS	(Cont.)				09-JUN-05
Chlorobenzene		< 0.2	0.2	ug/L	
Chlorodibromomethane		< 0.5	0.5	ug/L	

Chlorobenzene	< 0.2	0.2	ug/L
Chlorodibromomethane	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.1	0.1	ug/L
Chloromethane	< 1.0	1.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

4-Chlorotoluene < 0.5 ug/L

			ug/L
<	0.5	0.5	ug/L
<	0.5	0.5	ug/L
<	0.2	0.2	ug/L
<	0.2	0.2	ug/L
<	0.2	0.2	ug/L
<	1.0	1.0	ug/L
<	0.2	0.2	ug/L
<	0.2	0.2	ug/L
<	0.5	0.5	ug/L
< < < < <		0.5 0.2 0.2 0.2 1.0 0.2	6       0.5         6       0.2         6       0.2         6       0.2         6       0.2         7       0.2         8       1.0         1       0.2         2       0.2         3       0.2         4       0.2         6       0.2         7       0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 36 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project Name			Sampled By	
-	EDI	NA WELL EVALUATI	ON	mathew beckman	
mple No: 200514	581 Recei	ving Comments:	-		
Coll Date Co	oll Time 1015	Field No		Sampling Point	

Trip Blank Field Blank 200514583 200514582

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

		Re	sult	Rept Level	Units	Analysis Date
Note: Positive Organi	c Results are	indicat	ed by	BOLD.		
468 VOCs in Water by GC/MS	(Cont.)					09-JUN-05
cis-1,2-Dichloroethene		<	0.2	0.2	ug/L	
trans-1,2-Dichloroethene		<	0.1	0.1	ug/L	
Dichlorofluoromethane		<	0.5	0.5	ug/L	
1,2-Dichloropropane		<	0.2	0.2	ug/L	
1,3-Dichloropropane		<	0.2	0.2	ug/L	
2,2-Dichloropropane		<	0.5	0.5	ug/L	
1,1-Dichloropropene		<	0.2	0.2	ug/L	
cis-1,3-Dichloropropene		<	0.2	0.2	ug/L	
trans-1,3-Dichloropropens	•	<	0.2	0.2	ug/L	
Ethylbenzene		<	0.5	0.5	ug/L	
Ethyl ether		<	2.0	2.0	ug/L	
Hexachlorobutadiene		<	1.0	1.0	ug/L	
Isopropylbenzene		<	0.5	0.5	ug/L	
p-Isopropyltoluene		<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 37 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	EDI	NA WELL EVALUATION	mathew beckman
Sample No: 200	<b>0514581</b> Receiv	ving Comments: -	
Coll Date 08-JUN-2005	Coll Time	Field No	Sampling Point
Trip Blank	Field Blank	-	
200514583	200514582	_	

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS	(Cont.)					09- <b>JUN</b> -05
Methyl tertiary butyl ether	(MTBE)	<	2.0	2.0	ug/L	
Naphthalene		<	1.0	1.0	ug/L	
n-Propylbenzene		<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene	<	0.5	0.5	ug/L
1,1,1,2-Tetrachloroethane	<	0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	<	0.2	0.2	ug/L

Tetrachloroethene	< 0.2	0.2	ug/L
Tetrahydrofuran (THF)	< 10	10	ug/L
Toluene	< 0.5	0.5	ug/L
1,2,3-Trichlorobenzene	< 1.0	1.0	ug/L
1,2,4-Trichlorobenzene	< 0.5	0.5	ug/L
1,1,1-Trichloroethane	< 0.2	0.2	ug/L
1,1,2-Trichloroethane	< 0.2	0.2	ug/L
Trichloroethene (TCE)	< 0.1	0.1	ug/L
Trichlorofluoromethane	< 0.5	0.5	ug/L
1,2,3-Trichloropropane	< 0.5	0.5	ug/L
1,1,2-Trichlorotrifluoroethane	< 0.2	0.2	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 38 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID\_ Project Name Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514581 Receiving Comments: -Coll Date Coll Time Sampling Point Field No 08-JUN-2005 1015 p9 Trip Blank Field Blank 200514583 200514582 

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date
Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)

09-JUN-05

1,2,4-Trimethylbenzene

< 0.5

0.5

ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

1,3,5-Trimethylbenzene

< 0.5

0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

 Vinyl chloride
 < 0.2</td>
 0.2
 ug/L

 o-Xylene
 < 0.2</td>
 0.2
 ug/L

 p&m-Xylene
 < 0.3</td>
 0.3
 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 39 of 51

200514574 - 200514584 Samples:

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	ED	INA WELL EVALUATION	mathew beckman
ample No: 200	<b>514582</b> Rece	eiving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
Coll Date 08-JUN-2005	Coll Time 1050	Field No field blan	Sampling Point
<del>-</del>		field blan	

Unit: ORGANIC CHEMISTRY

468

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are i	ndicated by B	OLD.		
VOCs in Water by GC/MS				09-JUN-05
4-Bromofluorobenzene (surrogate)	94 8	70-130	%	

4-Bromofluorobenzene (surrogate)	94.8	70-130	%
1,2-Dichlorobenzene-D4 (surrogate)	125	70-130	%
Acetone	< 20	20	ug/L
Allyl chloride	< 0.5	0.5	ug/L
Benzene	< 0.2	0.2	ug/L
Bromobenzene	< 0.2	0.2	ug/L
Bromochloromethane	< 0.5	0.5	ug/L
Bromodichloromethane	< 0.2	0.2	ug/L
Bromoform	< 0.5	0.5	ug/L
Bromomethane	< 1.0	1.0	ug/L
n-Butylbenzene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the  ${\tt MS/MSD}$ . Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene < 0.5 0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

< 0.5 0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride < 0.2 0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 40 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project N	ame Sampled By
-	EDINA WELL EVA	LUATION mathew beckman
Sample No: 200	514582 Receiving Commer	nts: -
Coll Date 08-JUN-2005	Coll Time Field No field blan	Sampling Point
Trip Blank	Field Blank	
200514583	200514582	

Unit: ORGANIC CHEMISTRY

1,2-Dichloroethane

1,1-Dichloroethene

Reviewed By PDS on 16-JUN-05

	Result	Rept Level Units	Analysis Date
Note: Positive Organic Results are	indicated by BO	DLD.	
468 VOCs in Water by GC/MS (Cont.)			09-JUN-05
Chlorobenzene	< 0.2	0.2 ug/1	
Chlorodibromomethane	< 0.5	0.5 ug/1	
Chloroethane	< 0.5	0.5 ug/1	
Chloroform	0.1	0.1 ug/	
Chloromethane	< 1.0	1.0 ug/l	
2-Chlorotoluene	< 0.5	0.5 ug/1	
The spike recoveries for this targe	t analvte did no	t meet the OC accep	tance criteria
in the MS/MSD. Since the recoverie	<del>-</del>		
was not detected in the sample, the			
4-Chlorotoluene	< 0.5	0.5 ug/l	
The spike recoveries for this targe		- · · · · · · · · · · · · · · · · · · ·	
in the MS/MSD. Since the recoverie	-		
was not detected in the sample, the	-		=
1,2-Dibromo-3-chloropropane (DBCP)	< 2.0	2.0 ug/I	
-,-	< 0.5	0.5 ug/I	
1,2-Dibromoethane (EDB)		0.5 ug/I	
Dibromomethane		_	
1,2-Dichlorobenzene	< 0.2	0.2 ug/I	
1,3-Dichlorobenzene	< 0.2	0.2 ug/I	
1,4-Dichlorobenzene	< 0.2	0.2 ug/I	
Dichlorodifluoromethane	< 1.0	1.0 ug/I	
1,1-Dichloroethane	< 0.2	0.2 ug/I	

< 0.2

< 0.5

ug/L

ug/L

0.2

0.5

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF

Date Generated: 24-JUN-2005

Permest Page: 41 of 51

Request Page: 41 of 51

Samples: 200514574 - 200514584 Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site I	D Project Name	Sampled By
_	EDINA WELL EVALUATION	mathew beckman
Sample No:	200514582 Receiving Comments: -	

Coll Date Coll Time Field No Sampling Point

08-JUN-2005 1050 field blan -

Trip Blank Field Blank 200514583 200514582

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

VOCs in Water by GC/MS (Cont.)					09-JUN-05
cis-1,2-Dichloroethene	<	0.2	0.2	ug/L	
trans-1,2-Dichloroethene	<	0.1	0.1	ug/L	
Dichlorofluoromethane	<	0.5	0.5	ug/L	
1,2-Dichloropropane	<	0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
1,3-Dichloropropane	<	0.2	0.2	ug/L	
2,2-Dichloropropane	<	0.5	0.5	ug/L	
1,1-Dichloropropene	<	0.2	0.2	$\mathtt{ug}/\mathtt{L}$	
cis-1,3-Dichloropropene	<	0.2	0.2	ug/L	
trans-1,3-Dichloropropene	<	0.2	0.2	ug/L	
Ethylbenzene	<	0.5	0.5	ug/L	
Ethyl ether	<	2.0	2.0	ug/L	
Hexachlorobutadiene	<	1.0	1.0	ug/L	
Isopropylbenzene	<	0.5	0.5	ug/L	
p-Isopropyltoluene	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride < 0.5 0.5 ug/L Methyl ethyl ketone (MEK) < 10 10 ug/L Methyl isobutyl ketone (MIBK) < 5.0 5.0 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 42 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name	Sampled By
-	ED	INA WELL EVALUATION	mathew beckman
mple No: 200	514582 Rece	iving Comments: -	
Coll Date	Coll Time	Field No	Sampling Point
08-JUN-2005	1050	field blan	-
Trip Blank	Field Bla	nk	

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

Result	Rept Level	Units	Analysis Date

Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.	)				09-JUN-05
Methyl tertiary butyl ether (MTBE)	<	2.0	2.0	ug/L	
Naphthalene	<	1.0	1.0	ug/L	
n-Propylbenzene	<	0.5	0.5	ug/L	

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Styrene	<	0.5	0.5	ug/L
1,1,1,2-Tetrachloroethane	<	0.2	0.2	ug/L
1,1,2,2-Tetrachloroethane	<	0.2	0.2	ug/L

< 0.2	0.2	ug/L
< 10	10	ug/L
< 0.5	0.5	ug/L
< 1.0	1.0	ug/L
< 0.5	0.5	ug/L
< 0.2	0.2	$\mathtt{ug}/\mathtt{L}$
< 0.2	0.2	ug/L
< 0.1	0.1	ug/L
< 0.5	0.5	ug/L
< 0.5	0.5	ug/L
< 0.2	0.2	ug/L
	< 10 < 0.5 < 1.0 < 0.5 < 0.2 < 0.2 < 0.1 < 0.5 < 0.5	<pre>&lt; 10</pre>

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 43 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Project Name Site ID Sampled By \_ EDINA WELL EVALUATION mathew beckman Sample No: 200514582 Receiving Comments: -Coll Date Coll Time Field No Sampling Point 08-JUN-2005 1050 field blan Field Blank Trip Blank 200514583 200514582

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Result Rept Level Units Analysis Date Note: Positive Organic Results are indicated by BOLD.

468 VOCs in Water by GC/MS (Cont.)

09-JUN-05

1,2,4-Trimethylbenzene

< 0.5

0.5 ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

1,3,5-Trimethylbenzene

< 0.5

0.5 ug/

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

 Vinyl chloride
 < 0.2</td>
 0.2
 ug/L

 o-Xylene
 < 0.2</td>
 0.2
 ug/L

 p&m-Xylene
 < 0.3</td>
 0.3
 ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005

Date Generated: 24-JUN-2005 Program Name: MPCA-32 METRO MERLA-SF

Request Page: 44 of 51

200514574 - 200514584 Samples:

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project	Name	Sampled By
-	EDINA WELL	EVALUATION	mathew beckman
ple No: <b>20</b> 0	514583 Receiving Com	ments: -	
Coll Date	Coll Time Field No	o	Sampling Point
Coll Date	Coll Time Field No trip blas		Sampling Point
Coll Date - Trip Blank			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Note: Positive Organic Results are	Result indicated by B	Rept Level	Units	Analysis Date
468 VOCs in Water by GC/MS				09-JUN-05
4-Bromofluorobenzene (surrogate)	96.5	70-130	%	
1,2-Dichlorobenzene-D4 (surrogate)	127	70-130	%	
Acetone	< 20	20	ug/L	
Allyl chloride	< 0.5	0.5	ug/L	
Benzene	< 0.2	0.2	ug/L	
Bromobenzene	< 0.2	0.2	ug/L	
Bromochloromethane	< 0.5	0.5	ug/L	
Bromodichloromethane	< 0.2	0.2	ug/L	
Bromoform	< 0.5	0.5	ug/L	
Bromomethane	< 1.0	1.0	ug/L	
n-Butylbenzene	< 0.5	0.5	ug/L	
The spike recoveries for this targe	t analvte did no	t meet the OC	acceptance	criteria

The spike recoveries for this target analyte did not meet the QC acceptance cri in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

sec-Butylbenzene

< 0.5

0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

tert-Butylbenzene

< 0.5

0.5

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Carbon tetrachloride

< 0.2

0.2

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 45 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project Name	Sampled By
-	EDINA WELL EVALUATION	mathew beckman
ple No: 200	514583 Receiving Comments: -	
Coll Date	Coll Time Field No	Sampling Point
	<ul> <li>trip blank</li> </ul>	
-		
- Trip Blank	Field Blank	

Unit: ORGANIC CHEMISTRY

468

Reviewed By PDS on 16-JUN-05

		Result	Rept Level	Units	Analysis Date
Note: Positive Organic	Results are	indicated by	BOLD.		
VOCs in Water by GC/MS	(Cont.)				09-JUN-05

Chlorobenzene	< 0.2	0.2	ug/L
Chlorodibromomethane	< 0.5	0.5	ug/L
Chloroethane	< 0.5	0.5	ug/L
Chloroform	< 0.1	0.1	ug/L
Chloromethane	< 1.0	1.0	ug/L
2-Chlorotoluene	< 0.5	0.5	ug/L

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

4-Chlorotoluene < 0.5 ug/L

			ug/L
<	0.5	0.5	ug/L
<	0.5	0.5	ug/L
<	0.2	0.2	ug/L
<	0.2	0.2	ug/L
<	0.2	0.2	ug/L
<	1.0	1.0	ug/L
<	0.2	0.2	ug/L
<	0.2	0.2	ug/L
<	0.5	0.5	ug/L
	< < < < < < < <	< 0.5 < 0.2 < 0.2 < 0.2 < 1.0 < 0.2 < 0.2	<ul> <li>&lt; 0.5</li> <li>&lt; 0.2</li> <li>&lt; 0.2</li> <li>&lt; 0.2</li> <li>&lt; 0.2</li> <li>&lt; 1.0</li> <li>&lt; 0.2</li> <li>&lt; 0.2</li> <li>&lt; 0.2</li> <li>&lt; 0.2</li> <li>&lt; 0.2</li> <li>&lt; 0.2</li> </ul>

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 46 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	e ID Project Name		Sampled By	
-	EDIN	A WELL EVALUATION	mathew beckman	
ample No: 200	<b>514583</b> Receiv	ving Comments: -		_
Coll Date		Field No	Sampling Point	
Trip Blank	Field Blank			
200514583	200514582			

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

Note: P	ositive O	ganic	Results	are		sult ed by	_	Leve	l Units	Analysis Date
468 VOCs in V	Water by GC	MS	(Cont.)							09-JUN-05
cis-1,2-D	oichloroethe	ene			<	0.2		0.2	ug/L	
trans-1,2	2-Dichloroet	hene			<	0.1		0.1	ug/L	
Dichlorof	luoromethar	ıe			<	0.5		0.5	ug/L	
1,2-Dichl	oropropane				<	0.2		0.2	ug/L	
1,3-Dich1	oropropane				<	0.2		0.2	ug/L	
2,2-Dichl	oropropane				<	0.5		0.5	ug/L	
1,1-Dichl	oropropene				<	0.2		0.2	ug/L	
cis-1,3-D	oichloroprop	ene			<	0.2		0.2	ug/L	
trans-1,3	-Dichloropr	opene			<	0.2		0.2	ug/L	
Ethylbenz	ene				<	0.5		0.5	ug/L	
Ethyl eth	ner				<	2.0		2.0	ug/L	
Hexachlor	obutadiene				<	1.0		1.0	ug/L	
Isopropyl	benzene				<	0.5		0.5	$\mathtt{ug}/\mathtt{L}$	
	oyltoluene	rios f	or thic t	arae	t analyt	0.5		0.5	ug/L QC acceptance	critoria

The spike recoveries for this target analyte did not meet the QC acceptance criteria in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Methylene chloride	< 0.5	0.5	ug/L
Methyl ethyl ketone (MEK)	< 10	10	ug/L
Methyl isobutyl ketone (MIBK)	< 5.0	5.0	ug/L

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005
Request Page: 47 of 51

Samples: 200514574 - 200514584 Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Project	Name		Sampled	Ву
-	- EDINA WELL EVALUATION		mathew beckman		
Sample No: 200514583	Receiving Comm	ents: -			
Coll Date Coll	Time Field No		Sampli	ng Point	
_	- trip blan	<u> </u>		<u>-</u>	
Trip Blank Fie	ld Blank				
	0514582				
********	******	SAMPLE RESULT	S *********	*****	****
Unit: ORGANIC CHEMI	ISTRY Revi	ewed By <b>PDS</b> or	16-JUN-05		
		Result	Rept Level	Units	Analysis Date
Note: Positive Orga	unic Results are	indicated by	BOLD.		
68 VOCs in Water by GC/M	(Cont.)				09-JUN-05
Methyl tertiary butyl	ether (MTBE)	< 2.0	2.0	ug/L	
Naphthalene		< 1.0	1.0	ug/L	
n-Propylbenzene		< 0.5	0.5	ug/L	
The spike recoveri	es for this target	analyte did r	not meet the QC	acceptanc	e criteria
in the MS/MSD. Si	nce the recoveries	showed a post	itive bias and	the target	analyte
was not detected i	n the sample, the	datum was acce	epted without q	ualificati	on.
Styrene		< 0.5	0.5	ug/L	
1,1,1,2-Tetrachloroeth	ane	< 0.2	0.2	ug/L	
1,1,2,2-Tetrachloroeth	ane	< 0.2	0.2	ug/L	
The spike recoveri	es for this target	analyte did r	not meet the QC	acceptanc	e criteria
in the MS/MSD. Six	o one recoverrer	s showed a posi	icive bras and		
in the MS/MSD. Sin was not detected in					
was not detected in		datum was acce	epted without q	ualificati	
was not detected in Tetrachloroethene		datum was acce	epted without q 0.2	ualificati ug/L	
was not detected in Tetrachloroethene Tetrahydrofuran (THF)		datum was acce < 0.2 < 10	epted without q 0.2 10	ualificati ug/L ug/L	
was not detected in Tetrachloroethene Tetrahydrofuran (THF) Toluene		datum was acce < 0.2 < 10 < 0.5	epted without q 0.2 10 0.5	ualificati ug/L ug/L ug/L ug/L	
was not detected in Tetrachloroethene Tetrahydrofuran (THF) Toluene 1,2,3-Trichlorobenzene		datum was acce < 0.2 < 10 < 0.5 < 1.0	epted without q 0.2 10 0.5 1.0	ualificati ug/L ug/L ug/L	
was not detected in Tetrachloroethene Tetrahydrofuran (THF) Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene		datum was acce < 0.2 < 10 < 0.5 < 1.0 < 0.5	epted without q 0.2 10 0.5 1.0 0.5	ualificati ug/L ug/L ug/L ug/L ug/L	
was not detected in Tetrachloroethene Tetrahydrofuran (THF) Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichlorobenzene 1,1,1-Trichloroethane		datum was acce < 0.2 < 10 < 0.5 < 1.0 < 0.5 < 0.2	epted without q 0.2 10 0.5 1.0 0.5 0.2	ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L	
was not detected in Tetrachloroethene Tetrahydrofuran (THF) Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichloroethane 1,1,2-Trichloroethane		datum was acce < 0.2 < 10 < 0.5 < 1.0 < 0.5 < 0.2 < 0.2	epted without q 0.2 10 0.5 1.0 0.5 0.2	ualificati ug/L ug/L ug/L ug/L ug/L ug/L	
was not detected in Tetrachloroethene Tetrahydrofuran (THF) Toluene 1,2,3-Trichlorobenzene 1,2,4-Trichloroethane 1,1,2-Trichloroethane Trichloroethene (TCE)		datum was acce < 0.2 < 10 < 0.5 < 1.0 < 0.5 < 0.2 < 0.2 < 0.1	epted without q 0.2 10 0.5 1.0 0.5 0.2 0.2	ualificati ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 48 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name		Sampled	Ву
_	ED	INA WELL EVALUATION	,	mathew beck	man
Sample No: 200	<b>514583</b> Rece	iving Comments: -			<u>.</u>
Coll Date	Coll Time	Field No	Samp	ling Point	
-	-	trip blank		-	
Trip Blank	Field Bla	nk			
200514583	20051458	2			
*****	*****	******** SAMPLE RI	20111 TO *******	*****	****
Unit: ORGANIC	CHEMISTRY	Reviewed By P	DS on 16-JUN-05		
		_	7. Bank 7	1 1.	3
Maka. Davibia	- 0i- Da	Resu sults are indicated	<b>-</b>	1 Units	Analysis Date
Note: Positive	e Organic Ke	sults are indicated	n by Born.		
468 VOCs in Water by	y GC/MS (	Cont.)			09-JUN-05
1,2,4-Trimethylb	enzene	< 0	.5 0.5	ug/L	
The spike re	coveries for	this target analyte	did not meet the	QC acceptance	e criteria
in the MS/MS	D. Since the	e recoveries showed a	a positive bias an	d the target	analyte
was not detec	cted in the s	sample, the datum was	accepted without	qualificatio	on.
1,3,5-Trimethylb	enzene	< 0	.5 0.5	ug/L	
The spike re	coveries for	this target analyte	did not meet the	QC acceptance	e criteria
in the MS/MS	D. Since the	e recoveries showed a	ı positive bias an	d the target	analyte
was not dete	cted in the s	sample, the datum was	accepted without	qualification	on.
Vinyl chloride		< 0	.2 0.2	ug/L	
o-Xylene		< 0	.2 0.2	ug/L	
p&m-Xylene		< 0	.3 0.3	ug/L	
The spike re	coveries for	this target analyte	did not meet the	QC acceptance	e criteria
in the MS/MS	D. Since the	e recoveries showed a	positive bias an	d the target	analyte

in the MS/MSD. Since the recoveries showed a positive bias and the target analyte was not detected in the sample, the datum was accepted without qualification.

Amended Report - Client Copy - Report Of Analytical Results

Program: **PL** Date Received: **08-JUN-2005** 

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 49 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID	Proj	ect Name	Sampled By
-	EDINA WE	LL EVALUATION	mathew beckman
Sample No: 200	514584 Receiving	Comments: -	
Coll Date	Coll Time Field p304		Sampling Point
Trip Blank	Field Blank		
200514583	200514582		

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	indicated by B	OLD.		
468 VOCs in Water by GC/MS				18-JUN-05
4-Bromofluorobenzene (surrogate)	80.5	70-130	%	10 0011 00
1,2-Dichloroethane-D4 (surrogate)	93.3	70-130	%	
Dibromofluoromethane (surrogate)	110	70-130	%	
Toluene-d8 (surrogate)	109	70-130	%	
Acetone	123	10	%	
Allyl chloride	84	2.5	%	
Benzene	95	1.0	%	
Bromobenzene	91	1.0	%	
Bromochloromethane	70	2.5	%	
Bromodichloromethane	83	1.0	%	
Bromoform	79	2.5	%	
Bromomethane	70	10	%	
n-Butylbenzene	141	2.5	%	
sec-Butylbenzene	132	2.5	%	
tert-Butylbenzene	126	2.5	%	
Carbon tetrachloride	87	1.0	%	
Chlorobenzene	111	1.0	%	
Chlorodibromomethane	102	2.5	%	
Chloroethane	98	2.5	%	
Chloroform	86	0.5	%	
Chloromethane	102	5.0	%	
2-Chlorotoluene	130	2.5	%	
4-Chlorotoluene	123	2.5	%	
1,2-Dibromo-3-chloropropane (DBCP)	124	10	%	

Amended Report - Client Copy - Report Of Analytical Results

Date Received: 08-JUN-2005 Program: PL

Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 50 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID Project Name Sampled By EDINA WELL EVALUATION mathew beckman Sample No: 200514584 Receiving Comments: -

Coll Date Coll Time Field No Sampling Point p304 msd

Trip Blank\_ Field Blank 200514583 200514582

Unit: ORGANIC CHEMISTRY Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results ar	e indicated by BO	DLD.		
468 VOCs in Water by GC/MS (Cont.)				18-JUN-05
1,2-Dibromoethane (EDB)	118	2.5	%	10 0011 00
Dibromomethane	83	2.5	%	
1,2-Dichlorobenzene	110	1.0	%	
1,3-Dichlorobenzene	121	1.0	%	
1,4-Dichlorobenzene	109	1.0	%	
Dichlorodifluoromethane	102	10	%	
1,1-Dichloroethane	97	1.0	%	
1,2-Dichloroethane	92	1.0	%	
1,1-Dichloroethene	95	2.5	%	
cis-1,2-Dichloroethene	87	1.0	%	
trans-1,2-Dichloroethene	87	0.5	%	
Dichlorofluoromethane	100	2.5	%	
1,2-Dichloropropane	101	1.0	%	
1,3-Dichloropropane	129	1.0	%	
2,2-Dichloropropane	80	2.5	%	
1,1-Dichloropropene	91	1.0	%	
cis-1,3-Dichloropropene	109	1.0	%	
trans-1,3-Dichloropropene	110	1.0	%	
Ethylbenzene	126	2.5	%	
Ethyl ether	91	10	%	
Hexachlorobutadiene	85	10	%	
Isopropylbenzene	115	2.5	%	
p-Isopropyltoluene	131	2.5	%	
Methylene chloride	83	2.5	%	
			=	

Amended Report - Client Copy - Report Of Analytical Results

Program: PL Date Received: 08-JUN-2005
Program Name: MPCA-32 METRO MERLA-SF Date Generated: 24-JUN-2005

Request Page: 51 of 51

Samples: 200514574 - 200514584

Date Reported: 24-JUN-2005

Original Date Reported: 16-JUN-2005

Site ID		Project Name		Sampled By
-	EDI	NA WELL EVALUA	rion	mathew beckman
Sample No: 200	<b>)514584</b> Recei	ving Comments:	-	
Coll Date	Coll Time	Field No		Sampling Point -
Trip Blank	Field Blan	k		
200514583	200514582	***************************************		
*****	******	****** SAMPL	E RESULTS	*******

Unit: ORGANIC CHEMISTRY

Reviewed By PDS on 16-JUN-05

	Result	Rept Level	Units	Analysis Date
Note: Positive Organic Results are	e indicated by B	OLD.		
468 VOCs in Water by GC/MS (Cont.)				18-JUN-05
Methyl ethyl ketone (MEK)	121	10	%	
Methyl isobutyl ketone (MIBK)	148	10	%	
Methyl tertiary butyl ether (MTBE)	97	10	%	
Naphthalene	125	5.0	%	
n-Propylbenzene	136	2.5	%	
Styrene	121	2.5	%	
1,1,1,2-Tetrachloroethane	103	1.0	%	
1,1,2,2-Tetrachloroethane	127	1.0	%	
Tetrachloroethene	72	1.0	%	
Tetrahydrofuran (THF)	118	10	%	
Toluene	124	2.5	%	
1,2,3-Trichlorobenzene	117	5.0	%	
1,2,4-Trichlorobenzene	98	2.5	%	
1,1,1-Trichloroethane	88	1.0	%	
1,1,2-Trichloroethane	126	1.0	%	
Trichloroethene (TCE)	83	0.5	%	
Trichlorofluoromethane	103	2.5	%	
1,2,3-Trichloropropane	122	2.5	%	
1,1,2-Trichlorotrifluoroethane	89	1.0	%	
1,2,4-Trimethylbenzene	143	2.5	%	
1,3,5-Trimethylbenzene	138	2.5	%	
Vinyl chloride	114	1.0	%	
o-Xylene	118	1.0	%	
p&m-Xylene	124	2.0	%	
			-	





THE

INFRASTRUCTURE

**IMPERATIVE** 





# **SAMPLING INFORMATION FORM**

STS Consultants, Ltd. 10900 - 73<sup>rd</sup> Avenue North, Suite 150 Maple Grove, MN 55369

	athew Beckman	Weather: Sunny/70's					
Unusual Conditions		Project Edina Well 7 Study					
Location St. Louis Pa	ark, MN	STS project number 99613 - XA					
Sample ID number _V			Time <u>0840</u> am <u>X</u> pm				
Describe sampling poi	nt	· · · · · · · · · · · · · · · · · · ·					
MONITORING WELL	INFORMATION: (If	Applicable)					
Monitoring point elevat	tion = 895	Datun	n =	Water elevation =			
Well depth (prior to sa	mpling) = 31	feet below	monitoring point (mp)	o)			
Depth to water (below	mp) = 12.88	feet	Date 6/3/05	Time <u>0805</u>	_ am <u>X</u> _ pm		
Well diameter =	4	inches	Water level above s	creen? No _	Yes feet		
Volume of water in we	II =	gallons					
PURGING INFORMAT	<u>ΓΙΟΝ:</u>						
Puraina method:	Railer	Submanible numn	Ton	Othe	er		
Tuhing type:	Teffon	Submersible pump	rap	Other			
		feet be					
		gpm x					
At least	well v	olumes evacuated before	ore sampling totaling	citt			
711.10000	<b>W</b>	rolamos oracados bolo		ga			
SAMPLING INFORMA	ATION						
Compling method:	Deiler	Tan		Other V Con	tur : Digarata Campler		
Tubing type (if applicat	Daller	ıap		Other <u>A – Cen</u>	tury Discrete Sampler		
Tubinu iyoe urabbiicad		on	Our	#	<del></del>		
Bailer was: Dien	ole). I ell	Laboratory alasmad			Other		
Sampling method: Tubing type (if applicate Bailer was: Disp Sample collected from	oosable	Laboratory cleaned _	toring point (mp)	aned X	Other		
Sample collected from	25	feet below moni	toring point. (mp)	aned <u>X</u>	Other		
Sample collected from Sample collection discl	25 harge rate (if applica	feet below moni ble): =	toring point. (mp) gpm				
Sample collected from Sample collection discles Sample appearance	_ <u>25</u> harge rate (if applica <u>Clear</u>	feet below moni ble): =	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discles Sample appearance	_ <u>25</u> harge rate (if applica <u>Clear</u>	feet below moni ble): =	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discles Sample appearance	_ <u>25</u> harge rate (if applica <u>Clear</u>	feet below moni ble): =	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discles Sample appearance _ Note any sampling obs	25 harge rate (if applica Clear servations if necessa	feet below moni ble): = ry	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discl Sample appearance Note any sampling obs  Chemical Analysis	25 harge rate (if applica Clear ervations if necessa  ow Level VOC	feet below moni ble): = ry	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discl Sample appearance Note any sampling obs  Chemical Analysis	25 harge rate (if applica Clear ervations if necessa  ow Level VOC	feet below moni ble): = ry	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discles Sample appearance Note any sampling observed.  Chemical Analysis L	25 harge rate (if applica Clear ervations if necessa ow Level VOC	feet below moni ble): = ry	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discipled Sample appearance Note any sampling obsequence Chemical Analysis Lequipment Calibration	25 harge rate (if applica Clear ervations if necessa ow Level VOC	feet below moni	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discipled Sample appearance Note any sampling obsequence Chemical Analysis Lequipment Calibration	25 harge rate (if applica Clear ervations if necessa ow Level VOC	feet below moni ble): =  ry  Temperature	toring point. (mp) gpm Odo	r None observed			
Sample collected from Sample collection discipled Sample appearance Note any sampling obsequence Chemical Analysis Lequipment Calibration  FIELD STABILIZATIO	25 harge rate (if applica Clear servations if necessa ow Level VOC  N Redox	Temperature corrected conductance	toring point. (mp) gpm Odo	None observed  Water Level (nearest	Cumulative volume of water		
Sample collected from Sample collection discipled Sample appearance Note any sampling obsequence Chemical Analysis Lequipment Calibration	25 harge rate (if applica Clear servations if necessa ow Level VOC  N Redox	ry Temperature corrected	toring point. (mp)gpm Odo	r None observed  Water Level	Cumulative		
Sample collected from Sample collection discipled Sample appearance Note any sampling obsequence Chemical Analysis Lequipment Calibration  FIELD STABILIZATIO	25 harge rate (if applica Clear servations if necessa ow Level VOC  N Redox	Temperature corrected conductance	toring point. (mp) gpm Odo	None observed  Water Level (nearest	Cumulative volume of water		
Sample collected from Sample collection discipled Sample appearance Note any sampling obsequence Chemical Analysis Lequipment Calibration  FIELD STABILIZATIO	25 harge rate (if applica Clear servations if necessa ow Level VOC  N Redox	Temperature corrected conductance	toring point. (mp) gpm Odo	None observed  Water Level (nearest	Cumulative volume of water		
Sample collected from Sample collection discipled Sample appearance Note any sampling obsequence Chemical Analysis Lequipment Calibration  FIELD STABILIZATIO	25 harge rate (if applica Clear servations if necessa ow Level VOC  N Redox	Temperature corrected conductance	toring point. (mp) gpm Odo	None observed  Water Level (nearest	Cumulative volume of water		



# **SAMPLING INFORMATION FORM**

STS Consultants, Ltd. 10900 - 73<sup>rd</sup> Avenue North, Suite 150 Maple Grove, MN 55369

Sampler's Name: Mathew Beckman					Weather: Hazy/Warm 70's				
Unusual Conditions					Project Edina Well 7 Study				
Location St. Louis Park, MN					STS project number 99613 - XA				
Sample ID number W9 Date sampled 6/3/05					Time <u>0930</u> am <u>X</u> pm				
Unique Well Number	r 00216037								
•									
MONITORING WEL	L INFORMA	TION: (If A	pplicable)						
Monitoring point elev	ation = 89	0	Datum =		Water elevation =				
	Well depth (prior to sampling) = 25		feet below monitoring point (mp)						
Depth to water (below	w mp) = 9.	00	feet	Date <u>6/3/05</u>	Time (	0905	am X	pm	
Well diameter =	4		inches	Date <u>6/3/05</u> Water level above se	creen?	No	Yes	feet	
Volume of water in w	/ell =		gallons			_			
PURGING INFORM	ATION:		-						
Disposito es un adda a de	Dallas		On horse 20th annual	<b>-</b>		045			
Purging method:	Baller		Submersible pump _	Тар		_ Otner			
				ow monitoring point (m					
				0.1336806 =					
At least		well voi	umes evacuated belor	e sampling, totaling _	yand	115.			
SAMPLING INFORM	MATION								
Sampling method:	Baile	r	Tap		Other >	( – Century	/ Discrete	Sampler	
Tubing type (if applicable): Tef			on (		Other				
Bailer was: Dis	sposable _	L	aboratory cleaned	Field clea	aned X	Otl	ner		
Sample collected from	m <u>20</u>		feet below monito	oring point. (mp)					
			e): =						
Sample appearance	Clear			Odo					
Note any sampling of	bservations i	f necessary							
	<del></del>					<del></del>			
Chemical Analysis	low Level \	/OC							
Equipment Calibration						~			
FIELD STABILIZATI	ON								
Military time ,	р <b>Н</b>	Redox Pot.	Temperature corrected conductance [ms/cm]	Temperature [°C]	Water Leve (nearest 0.01 ft.)	el 	Cumula volume o removed	of water	



Sampler's Name:	Mathew Bec	kman		Weather: <u>Hazy/Breezy 80's</u> Project <u>Edina Well 7 Study</u>				
Unusual Condition	ıs							
Location St. Loui	s Park, MN				STS project number 99613 - XA			
			Date sampled 6	/3/05	Time <u>1050</u>	am <u>X</u> pm		
MONITORING WE	ELL INFORMA	ATION: (If A	applicable)					
Monitoring point el	evation = 89	1	Datum	n≖	Water elevation =	<b>-</b>		
			feet below					
Depth to water (be	low mp) = 10	0.63	feet	Date <u>6/3/05</u>	Time 1000	am <u>X</u> pm		
Well diameter = _	4		inches	Water level above	screen? No _	Yes feet		
Volume of water in	well =		gallons					
PURGING INFOR	MATION:							
Purging method:	Railer		Submersible numn	Ts	an Oth	nor		
Tubing type:	Teflon		Black nolv	I 6	Other	ner		
Pump intake or ba	iler set at		feet be	low monitoring point (		<u> </u>		
			gpm x					
At least		well vo	lumes evacuated befo	re sampling, totaling	gallons.			
				1 0, 0	<b>J</b>			
SAMPLING INFO	RMATION							
Sampling method:	Raile	r	Tan		Other X – Cer	ntury Discrete Sampler		
Tubing type (if ann	licable).	Teflo	n rap	Ot	Other <u>X = Oct</u> her	nary biscrete sumpler		
Bailer was:	Disposable	1 0.10	aboratory cleaned	Field cl	eaned X	Other		
Sample collected fi	rom 58		feet below monit	toring point. (mp)	<u>7</u>	<u> </u>		
Sample collection	discharge rate	(if applicabl	e): =	apm				
Sample appearance				O	dor None observed			
Note any sampling				/17 prepared @ 1340	& field blank prepared	d @ 1100		
			<del></del>					
Chemical Analysis	Low Level \	/OC			·			
				<del></del>				
FIELD STABILIZA	TION							
	<del></del>							
			Temperature					
Military		Redox	corrected conductance	Temperature	Water Level	Cumulative volume of water		
time	pН	Pot.	[ms/cm]	[°C]	(nearest 0.01 ft.)	removed [gal.]		
	-		<u> </u>					
	<del></del>	<del></del>				<del></del>		
· · · · · · · · · · · · · · · · · · ·					<del>-</del> -			



Weather: Cloudy/Breezy 80's Project Edina Well 7 Study STS project number 99613 - XA				
				om
<del></del>				
pm				
feet				
Sampler				
ntive				
ative of water				
ative of water				
ative of water				



Sampler's Name	e: Mathew Beck	man		Weather: Cloudy/Breezy 80's Project Edina Well 7 Study				
Unusual Condition	ons							
Location St. Lo	uis Park, MN				STS project number 99613 - XA			
Sample ID number W21 Date sampled 6/3/05				/3/05	Time <u>1230</u>	ampm <u>X</u>		
Describe sampli	ing point							
					····			
MONITORING V	WELL INFORMA	TION: (If F	Applicable)					
Monitoring point	elevation = 892	2	Datum	)=	Water elevation =	=		
				monitoring point (mp)				
Depth to water (t	below mp) = 25	.81	feet	Date 6/3/05	Time 1148_	_ am <u>X</u> _ pm		
						Yes feet		
			gallons					
PURGING INFO	RMATION:							
Puraina method:	Bailer		Submersible numn	Tan	Oth	ner		
Tubing type:	Teflon		Black nolv	rup	Other			
				low monitoring point (m				
Discharge rate /ii	f applicable)		dom v	0.1336806 =	rp/.			
At least	парріючью	well vo	lumes evacuated hefo	re sampling, totaling _	callons			
7 tt 1000t		***********************************	namoo ovadaatoa bolo	To sampling, totaling _	gallons.			
SAMPLING INFO	<u>ORMATION</u>							
Sampling mother	d: Bailar		Ton		Other V Co.	atur. Diografa Samplar		
Tubing tried lot	u. Dallei pplicable):	Toffo	rap	Oth	Office V - Cel	ntury Discrete Sampler		
Pollor was:	Picable).	1 6110	shoroton, alconed	OUIR	31	Other		
Dallel Was. Sample sollogies	Uispusable		foot below	Field Clea	aned X	Other		
Sample collected	3 110111 <u>30</u>		feet below monit	oring point. (mp)				
			e): =		No. 1 de la constant			
Sample appeara				Odo	r None observed			
Note any samplir	ng observations it	necessary	9 vials prepared for	MS/MSD				
Chemical Analysi	is low level V	OC						
Equipment Calibi								
FIELD STABILIZ	ATION							
			Tananant					
			Temperature corrected		Water Level	Cumulative		
Military		Redox	conductance	Temperature	(nearest	volume of water		
time	pΗ	Pot.	[ms/cm]	[°C]	0.01 ft.)	removed [gal.]		
	<del></del>							
		<del></del>						



Sampler's Name:	Sampler's Name: Mathew Beckman						Weather: Overcast/Windy 80's			
Location St. Louis	s Park, MN									
Sample ID number	r Monitor W	ell W-18	Date sampled 6	/3/05	Time <u>1430</u>					
Unique Well Numb	per 00439813	3								
MONITORING WE	LL INFORM	ATION: (If A	pplicable)				<del>-</del> "			
Monitoring point el	evation =8	391	Datum	=	Water eleva	ation =				
Mall dooth (prior to	· compling) -	70	foot bolow	itarinaint ()						
Depth to water (be	low mp) = <u>1</u>	2.10	feet	Date 6/3/05 Water level above so	Time <u>1</u>	346 a	ım <u>X</u>	pm		
Well diameter = _	4		inches	Water level above so	creen?	No	Yes _	feet		
Volume of water in	well =		gallons							
PURGING INFOR	MATION:									
Puraina method:	Bailer		Submersible numn	Тар		Other				
Tubing type:	Teflon		Black noty	- Tap	Other					
Pump intake or ba	iler set at	•	feet he	ow monitoring point (m	n)		· <del></del> -			
				0.1336806 =						
				e sampling, totaling		ns.				
, ii iooot		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		o oampinig, totaling _	gao.					
SAMPLING INFOR	RMATION									
Compline mathed	Daile		T		Other V	Cantura	Diagrata	Compler		
Sampling metriod:	Dalle Valdacii	T-9-		Otho	Other <u>X</u>	<u>– Century</u>	Discrete	Sampler		
Poilor was:	licable). Disposoble	renor	oboratory alcanad	Othe	er	Oth	or			
Sample collected fr	om 60		feet below monit	rielu clea	illeu 🔨	Oui	Ci	<del></del>		
Sample collection of	tischarne rate	(if applicable	e): =	anm						
				9pm Odoi	r None obser	ved				
rioto uny oumpung	0200774407110						· <del>-</del>			
Chemical Analysis	Low Level	VOC								
Equipment Calibrat	ion									
FIELD STABILIZA	TION			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		<u>.</u>	<u> </u>			
			Tomporeture							
			Temperature corrected		Water Level		Cumula	ative		
Military		Redox	conductance	Temperature	(nearest		volume	of water		
time	рH	Pot.	[ms/cm]	[°C]	0.01 ft.)		removed	ı [gai.]		
	<del></del>	<del></del>								



Sampler's Nam	ne: Mathew B	eckman	Weather: Overcast/Windy 80's					
				Project Edina Well 7 Study				
					STS project number 99613 - XA			
			Date sampled		Time <u>1520</u>	ampm <u>X</u>		
MONITORING	WELL INFOR	MATION: (If	Applicable)					
Monitoring poin	nt elevation =	897	Datu	ım =	Water elevation	=		
				w monitoring point (m				
						am pm <u>X</u> _		
Well diameter	=	1	inches	Water level abov	re screen? No	Yes feet		
			gallons					
PURGING INFO	ORMATION:							
Puraina method	d· Railer		Suhmereihle num	,	Tan O	ther		
				below monitoring poin				
				x 0.1336806 =				
At least	(ii applicable)	well v	volumes evacuated he	fore sampling, totaling	aallone			
7 tt 1000t		Won v	oldinos evacuated be	Tore sampling, totaling	ganons.			
SAMPLING INF	FORMATION							
0 " "			_					
Sampling metho	od: Ba	iller	Ta	ip	Other <u>X – Ce</u>	entury Discrete Sampler		
Tubing type (if a	applicable):	Teff	on		Other	Other		
Bailer was:	Disposable		Laboratory cleaned	Field	cleaned X	Other		
Sample collecte	ed from <u>23</u>		feet below mo	nitoring point. (mp)				
Sample collection	on discharge ra	ite (if applicat	ble): =	gpm				
Sample appeara	ance <u>Yellowis</u>	sn :		(	Odor None observed			
Note any sampi	ling observation	ns if necessar	ry					
0 1 1 1 1			<del></del>					
Chemical Analys	sis Low Leve	el VOC	<del></del>					
<b>Equipment Calib</b>	oration							
FIELD STABILI	ZATION							
I ILLD OTABILI	LATION							
			Temperature					
Militon		Dada	corrected	T	Water Level	Cumulative		
Military time	На	Redox Pot.	conductance [ms/cm]	Temperature [°C]	(nearest 0.01 ft.)	volume of water removed [gal.]		
	μ· ·		[moroin]	[ ]	0.01 It. <i>)</i>	Terrioved [gai.]		
					<del>-</del>			



Sampler's Name:		Weather: Overcast/Windy 80's						
					Project Edina Well 7 Study			
Location St. Loui	s Park, MN				STS projec			
Sample ID numbe	r <u>W423</u>		Date sampled 6	2/05	Time <u>111</u>			
			· · · · · · · · · · · · · · · · · · ·					
Unique Well Numl	ber <u>00439813</u>	3						
MONITORING WI	ELL INFORM	ATION: (If A	Applicable)				· <del></del>	-
Monitoring point el	levation = 8	97	Datum	=	Water ele	evation =		
Well depth (prior to	o sampling) =		feet below	monitoring point (mp)				
Depth to water (be	elow mp) = 3	6.25	feet	Date 6/2/05	Time	1042	am X	pm
Well diameter =	4		inches	Water level above s	creen?	No	Yes	fee
Volume of water in	n well =		gallons					
PURGING INFOR	MATION:							
Duraina mathadi	Doilor		Cultura amailh la muuna	T		O41		
Tubing type:	Daller _		Submersible pumpBlack poly		Oth	Otner		<del></del>
			feet be					
At least	аррпсавіе)	well vo	gpm x ( lumes evacuated before	e samplina totalina	Cini	ı lone		
	<del></del>	Well vo	diffes evacuated belof	e sampling, totaling _	yaı	10113.		
SAMPLING INFO	RMATION							
Sampling method:	Baile	er	Тар		Other	X - Centu	ry Discrete	Sampler
Tubing type (if app	licable):	Teflo	naboratory cleaned	Oth	er			
Bailer was:	Disposable _	1	aboratory cleaned	Field cle	aned X		ther	
Sample collected fi	rom <u>23</u>		feet below monit	oring point. (mp)				
Sample collection	discharge rate	(if applicabl	e): =	gpm				
Sample appearance	e <u>Clear</u>		<u> </u>	Odo	r None obs	erved		
			<u> </u>					
				<del></del>				
Chemical Analysis	Low Level	VOC, duplic	ate @1203 (W425)					
Equipment Calibra	tion							
						. <del>.</del>		
FIELD STABILIZA	TION							
Military time	рН	Redox Pot.	Temperature corrected conductance [ms/cm]	Temperature [°C]	Water Lev (nearest 0.01 ft.)	⁄el		lative of water d [gal.]



Sampler's Name	e: Mathew Be	ckman			Weather: Overcast	t/Windy 80's	<b>i</b>	
				Project Edina Well 7 Study				
					STS project number 99613 - XA			
			Date sampled 6		Time <u>1415</u>	am	_pm <u>X</u>	
Describe sampling	ng point							
MONITORING V	WELL INFORM	IATION: (If	Applicable)					
Monitoring point	elevation = 8	91	Datur	n =	Water elevation =	<b>.</b>		
Well depth (prior	to sampling) =	: 68	feet helov	monitoring point (mn)				
Depth to water (I	below mp) = _	10.69	feet	Date 6/2/05 Water level above s	Time <u>1330</u>	_ am	_ pm <u>X</u> _	
Well diameter =	4		inches	Water level above s	creen? No _	Yes	feet	
Volume of water	in well =		gallons					
PURGING INFO	RMATION:							
Purging method:	Bailer		Submersible numn	Тар	Oth	ier		
Tubing type:	Teffon		Black nolv		Other	·		
Pump intake or	bailer set at		feet be	elow monitoring point (n	nn)	-		
				0.1336806 =				
				ore sampling, totaling				
				,, o oopg, totag	<u> </u>			
SAMPLING INFO	ORMATION							
Sampling method	d· Bail	ler	Tan		Other V. Cer	ntury Discret	re Sampler	
Tubing type (if ar	u. nnlicahla):	Teff(	ıap	Oth.	Oulei <u>X - Cei</u>	itary Discret	e oampioi	
Railer was:	Dienosable	76110	I ahoratory cleaned	Oth	anad Y	Other		
Sample collected	from 64		feet below moni	itoring point (mp)	aneu X			
Sample collection	n discharge rat	e (if applicat	le): =	anm				
				gpm Odd	r None observed			
Note any samplir	na observations	s if necessar	<u>-</u>	Odd	INOTIE ODSETVEU			
rioto ariy darripiii	ig oboorvation.	, II 110003341	<i></i>					
Chemical Analysi	is low level	VOC tritium	field blank prepared	@1340				
Equipment Calibr	ration							
				*******	<del></del>			
FIELD STABILIZ	ATION							
			Temperature					
NA:IIIa		D- 1	corrected		Water Level		ulative	
Military time	pН	Redox Pot.	conductance [ms/cm]	Temperature	(nearest 0.01 ft.)	volume remove	e of water ed [gal.]	
	:	F OL.	[mazem]	[°C]	0.01 IL.)	(GIIIOV	su [yai.]	
	<del></del>							
					·			



Sampler's Nam	ne: <u>Mathew Bec</u>	kman	Weather: Overcast/Windy 80's					
					Project Edina Well 7 Study STS project number 99613 - XA			
Sample ID num	nber <u>W429</u>		_ Date sampled <u>-6</u>	6/2/05	Time <u>1545</u>	ampm X		
Describe samp	ling point			· · · · · · · · · · · · · · · · · · ·				
Unique Well Nu	ımber <u>00439724</u>	<u>-</u>	,, ,, , , , , , , , , , , , , , , , ,		······	<u></u>		
MONITORING	WELL INFORMA	ATION: (If	Applicable)					
Monitoring poin	it elevation = <u>89</u>	)2	Datur	n =	Water elevation =	: . <u></u> .		
Well depth (price	or to sampling) =	81	feet below	monitoring point (mp	o)			
Depth to water	(below mp) = 10	0.18	feet	Date 6/2/05	Time 1525	_ am pm <u>X</u>	(	
Well diameter :	=4		inches	Water level above	screen? No	Yes	feet	
			gallons					
PURGING INFO	ORMATION:							
Puraina method	l· Bailer		_ Submersible pump	T:	an Oth	or		
Tubing type:	Teflon		Black poly	18	Other	·		
			feet be					
			gpm x					
			olumes evacuated befo					
/ It loads	<del></del>	WOII V	Oldinios cyacuated bein	re sampling, totaling	gallons.			
SAMPLING INF	ORMATION							
Sampling metho	nd: Baile	r	Тар		Other Y - Cen	otuni Discrete Samole	ar.	
Tubing type (if a	onnlicable):	Toff	iap		Outer <u>A - Oct</u>	itury Discrete Sample	1	
Pailorwas:	ppiicabie). Disposable	1 611	onLaboratory cleaned _	OI	loaned Y	Other	_	
Sample collecte	od from 64		feet below moni	toring point (mp)	realieu A	Other	_	
			ole): =					
Sample collection	onco Cloar	(ii applicat	ле). <del>-</del>	gpin	dor. None observed			
Sample appeara Note any sampli	ing observations	if necessar	у		JOI INOITE ODSEIVEG		—	
Note any sampi	ing observations	ii Hecessai	у				_	
Chemical Analys	sis <u>Low Level \</u>	VOC, tritiun	n					
Equipment Calib	oration							
FIELD STABILI	ZATION							
	<del></del>							
			Temperature		Metarl and	Cumulative		
Military		Redox	corrected conductance	Temperature	Water Level (nearest	volume of water		
time	рН	Pot.	[ms/cm]	[C]	0.01 ft.)	removed [gal.]		
	· ·		· •	- <del>-</del>	· ·		_	
							_	
							_	



Sampler's Name: Mathew Beckman	Weather: Overcast/Windy 80's			
Unusual Conditions	<u> </u>			
Location St. Louis Park, MN				
Sample ID number Monitor Well W-14 Date sampled 6/2/05	-			
Describe sampling point				
Unique Well Number 0011472				
MONITORING WELL INFORMATION: (If Applicable)				
Monitoring point elevation = 890 Datum =	Water elevation =			
Well depth (prior to sampling) = 81 feet below monitoring point	t (mp)			
Depth to water (below mp) = $\frac{25.47}{4}$ feet Date $\frac{6}{2}$ /05 Well diameter = $\frac{4}{1}$ inches Water level at	Time <u>1630</u> am pm <u>X</u>			
Well diameter = 4 inches Water level a	bove screen? No Yes feet			
Volume of water in well = gallons				
PURGING INFORMATION:				
Purging method: Bailer Submersible pump	Tan Other			
Tubing type: Teflon Black poly	Other			
Pump intake or bailer set at feet below monitoring p	Otrier			
Discharge rate (if applicable) gpm x 0.1336806 =				
At least well volumes evacuated before sampling, total				
The volumes evaluated before sampling, total	ming gallons.			
CAMPI INC INCOPRATION				
SAMPLING INFORMATION				
	Other X - Century Discrete Sampler			
Sampling method: Bailer Tap	Other X – Century Discrete Sampler			
Sampling method: Bailer Tap Tubing type (if applicable): Teflon	Other			
Sampling method: Bailer Tap  Tubing type (if applicable): Teflon  Bailer was: Disposable Laboratory cleaned Fig.	Othereld cleaned X Other			
Sampling method: Bailer Tap  Tubing type (if applicable): Teflon  Bailer was: Disposable Laboratory cleaned Figure Sample collected from 70 feet below monitoring point. (mp)	Othereld cleaned X Other			
Sampling method: Bailer	Other Other			
Sampling method: Bailer Tap	Other eld cleaned X Other  Odor None observed			
Sampling method: Bailer	Other Other eld cleaned X Other Odor None observed			
Sampling method: Bailer Tap	Other eld cleaned X Other  Odor None observed			
Sampling method: Bailer	Other Other eld cleaned X Other  Odor None observed			
Sampling method: Bailer	Other Other eld cleaned X Other  Odor None observed			
Sampling method: Bailer Tap	Other Other eld cleaned X Other  Odor None observed			
Sampling method: Bailer	Other Other eld cleaned X Other  Odor None observed			
Sampling method: Bailer	Other Other  Odor None observed  Water Level Cumulative (nearest volume of water			
Sampling method: Bailer	Other Other  Odor None observed  Water Level Cumulative			
Sampling method: Bailer	Other Other  Odor None observed  Water Level (nearest volume of water			
Sampling method: Bailer	Other Other  Odor None observed  Water Level (nearest volume of water			
Sampling method: Bailer	Other Other  Odor None observed  Water Level (nearest volume of water			



Sampler's Name: M	lathew Becl	kman			Weather: Overcast/W	/indy 80's		
					Project Edina Well 7 Study			
Location St. Louis Pa	ark, MN				-	99613 - XA		
Sample ID number	W132		Date sampled 6/2			npm <u>X</u>		
Describe sampling po	int		·			·		
Unique Well Number	00165587							
MONITORING WELL	INFORMA	TION: (If A	oplicable)					
Monitoring point eleva	ntion = <u>90</u> 2	2	Datum	=	Water elevation =			
Well depth (prior to sa	molina) =	92	feet below r	monitorina point (mn)				
Depth to water (below	mp) = <u>33</u>	3.15	feet	Date <u>6/2/05</u>	Time <u>1830</u>	am pm <u>X</u> Yesfeet		
Well diameter =	4		inches	Water level above so	reen? No	Yes feet		
Volume of water in we	ell =		gallons					
PURGING INFORMA	TION:							
Puraina method:	Bailer		Submersible pump	Тар	Other			
Tubing type:	Teflon		Black poly		Other			
Pump intake or bailer	set at		feet belo	ow monitoring point (mp	o).			
				.1336806 =				
At least		well volu	umes evacuated before	e sampling, totaling	gallons.			
SAMPLING INFORMA	ATION				_			
Sampling method:	Bailer	•	Tan		Other X – Centu	ry Discrete Sampler		
Tubing type (if applical	ble):	Teflon	up	Other	r Outor <u>A Gorida</u>	1, 2,00,00,00		
Bailer was: Disc	oosable	Li	aboratory cleaned	Other	ned X O	ther		
Sample collected from	87		feet below monitor	pring point. (mp)				
Sample collection disc								
				Odor	None observed			
Note any sampling obs	servations i	f necessary						
Chemical Analysis <u>L</u>	ow Level V	OC, tritium						
Equipment Calibration								
FIELD STABILIZATIO	)N							
	<del></del>							
			Temperature		Materia estal	Cumulati ta		
Military		Redox	corrected conductance	Temperature	Water Level (nearest	Cumulative volume of water		
time pl	H	Pot.	[ms/cm]	[°C]	0.01 ft.)	removed [gal.]		
						<del></del>		



Sampler's Name	e: Mathew Be	ckman			Weather: Overcast/Windy 80's			
				Project Edina Well 7 Study				
Location St. Lo	ouis Park, MN				STS project number 99613 - XA			
Sample ID numi	ber P62		_ Date sampled 6	/2/05	Time 2030	_ ampm <u>X</u>		
		-						
MONITORING \	WELL INFORM	ATION: (If	Applicable)					
Monitoring point	t elevation = 9	09	Datum	ı =	Water elevati	on =		
Well depth (prior	r to sampling) =	122	feet helow	monitoring point (mr	1)			
Depth to water (	below mp) = _4	17.47	feet	Date <u>6/2/05</u>	Time 200	00 am pm <u>X</u> o Yes feet		
Well diameter =	44		inches	Water level above	screen? No	Yes feet		
Volume of water	r in well =		gallons					
PURGING INFO	ORMATION:							
Puraina method:	: Bailer		Submersible nump	T:	an	Other		
Tubing type:	Teflon		Black poly		Other			
			feet be					
			gpm x					
			olumes evacuated befo					
				, , , , , , , , , , , , , , , , , , ,	g			
SAMPLING INF	ORMATION							
Sampling metho	od: Baile	er	Tan		Other X	Century Discrete Sampler		
Tubing type (if a	pplicable):	Teflo	on	Of	ther	Contact Discovery Control		
Bailer was:	Disposable		Laboratory cleaned	Field c	leaned X	Other		
Sample collected	d from 110		feet below moni	toring point (mp)	iodriod <u>//</u>			
			ole): =					
					tor None observe	ed		
Note any samplir	ng observations	if necessar	у		doi <u>140/16 observe</u>			
Chemical Analys	sis low level	VOC tritium						
						<del></del>		
Equipment Callbi				<del>-</del>				
FIELD STABILIZ	ZATION							
			Temperature corrected		Water Level	Cumulative		
Military	mLI.	Redox	conductance	Temperature	(nearest	volume of water		
time	pН	Pot.	[ms/cm]	[°C]	`0.01 ft.)	removed [gal.]		
	_							



Sampler's Name	: Mathew Bed	ckman		Weather: Overcast/Windy 80's				
					Project Edina Well 7 Study			
Location St. Lou	uis Park, MN							
			Date sampled 6/			ampm X		
MONITORING W	ELL INFORM	ATION: (If A	Applicable)					
Monitoring point	elevation = _88	B2	Datum	=	Water elevation	) <b>=</b>		
Well depth (prior	to sampling) =	87	feet below	monitoring point (mp)				
Depth to water (b	elow mp) = <u>0</u>	0165579	feet	Date 6/2/05	Time 2125	am pm <u>X</u> Yes feet		
Well diameter =	4		inches	Water level above so	reen? No	Yes feet		
Volume of water i	in well =		gallons					
PURGING INFOR	RMATION:							
Puraina method:	Railer		Submersible numn	Tan	0	ther		
Tuhing type:	Teflon		Rlack noty	гар	Other	u lei		
Pump intake or h	ailer set at		black puly	ow monitoring point (m	Oli lei			
				0.1336806 =				
				e sampling, totaling				
			iumoo oracaatoa boror	o damping, totaling _	ganone.			
SAMPLING INFO	RMATION							
Sampling method	: Baile	er	Тар		Other X – Ce	entury Discrete Sampler		
Tubing type (if ap	plicable):	Teflo	n	Othe	r	Other		
Bailer was:	Disposable _	l	aboratory cleaned	Field clea	ned X	Other		
Sample collected	from <u>77</u>		feet below monit	oring point. (mp)				
Sample collection	discharge rate	(if applicabl	e): =	gpm				
Sample appearan	ce <u>Clear</u>		····	Odor	None observed			
Chemical Analysis	s Low Level	VOC, tritium						
Equipment Calibra	ation							
FIELD STABILIZA	ATION							
I ILLY Y I ADILIE								
Military time	На	Redox Pot.	Temperature corrected conductance [ms/cm]	Temperature [°C]	Water Level (nearest 0.01 ft.)	Cumulative volume of water removed [gal.]		
					-			
<del> </del>								



Sampler's Name: Mathew Beckman	Weather: Overcast/Windy 80's	
Unusual Conditions		
Location St. Louis Park, MN		
Sample ID number W424 Date sampled 6/2/05	Time <u>0840</u> ampm X	
Describe sampling point		
Unique Well Number <u>00439809</u>		
MONITORING WELL INFORMATION: (If Applicable)		
Monitoring point elevation = 933 Datum =	Water elevation =	
Well depth (prior to sampling) = 112 feet below mon	toring point (mp)	
Depth to water (below mp) = 35.7 feet Da	te <u>6/2/05</u> Time <u>0730</u> am <u>X</u> pm	
Well diameter = inches W	ater level above screen? No Yes feet	
Volume of water in well = gallons		
PURGING INFORMATION:		
Purging method: Bailer Submersible pump	Tap Other	
Tubing type: Teflon Black poly	Other	
Pump intake or bailer set at feet below n		
Discharge rate (if applicable) gpm x 0.133		
At least well volumes evacuated before sa		
SAMPLING INFORMATION		
Sampling method: Bailer Tap	Other X – Century Discrete Sampler	
Tubing type (if applicable):  Teflon	Other	
Tubing type (if applicable): Teflon Laboratory cleaned	Field cleaned X Other	
Sample collected from 102 feet below monitoring	point. (mp)	
Sample collection discharge rate (if applicable): =	qpm	
Sample appearance <u>Clear</u>	Odor None observed	
Note any sampling observations if necessary		
Chemical Analysis Low Level VOC, tritium		
Equipment Calibration		
EIFI D CTADII IZATION		
FIELD STABILIZATION		
Temperature		
corrected	Water Level Cumulative	
Military Redox conductance Tetime pH Pot. [ms/cm] [°C	nperature (nearest volume of water ] 0.01 ft.) removed [gal.]	



Sampler's Name: Mathew Beckman		Weather: Overcast/Windy 80's
Unusual Conditions		Project Edina Well 7 Study
Location St. Louis Park, MN		STS project number 99613 - XA
Sample ID number P304 Date Date Date Date Date Date Date Date		Time <u>1545</u> ampm X
Describe sampling point		
Unique Well Number <u>00439765</u>		
MONITORING WELL INFORMATION: (If Applicab	e)	
Monitoring point elevation = 892	Datum =	Water elevation =
Well depth (prior to sampling) = 36		
Depth to water (below mp) = 9.28		
Well diameter = 1.2	inches Water level abov	ve screen? No Yes feet
Volume of water in well =	gallons	
PURGING INFORMATION:		
Purging method: Bailer Subm	ersible pump	Tap Other X - Peristaltic
Tubing type: Teflon	Black poly	Other X - PVC
Pump intake or bailer set at	feet below monitoring poin	nt (mp).
Discharge rate (if applicable) <1	gpm x 0.1336806 =	cfm
At least well volumes e		
SAMPLING INFORMATION		
Sampling method: Bailer	Тар	Other
Tubing type (if applicable): Teflon		Other
Tubing type (if applicable): Teflon	ry cleaned Field	cleanedOther
Sample collected from 35 fe	et below monitoring point. (mp)	
Sample collection discharge rate (if applicable): = _	gpm	
Sample appearance <u>Clear</u>		Odor <u>Chemical</u>
Note any sampling observations if necessary		
Chemical Analysis Low Level VOC, duplicate P30	5, MS/MSD	
Equipment Calibration $pH = 7,4,10,7$ Conductivity		
FIELD STABILIZATION		
Tempo	erature	•
corréc	ted	Water Level Cumulative
Military Redox condu- time pH Pot. [ms/cn	ctance Temperature	(nearest volume of water 0.01 ft.) removed [gal.]
1510 7.3 -123 1177	13.9	~1
1516 7.3 -117 1184	13.3	
1523         7.3         -110         1164           1524         7.3         -106         1168	12.5 12.4	<u>~4</u> ~5
1536 7.3 -103 1169	12.4	~5 ~6



Sampler's Name: Mathew Beckman	Weather: Overcast/Windy 80's
Unusual Conditions	Project Edina Well 7 Study
Location St. Louis Park, MN	STS project number 99613 - XA
Sample ID number P8 Date sampled 6/7/05	Time 1020 am X pm
Describe sampling point	
Unique Well Number 00216117	
MONITORING WELL INFORMATION: (If Applicable)	
Monitoring point elevation = 890 Datum =	Water elevation =
Well depth (prior to sampling) = 13 feet below monitoring point (mp	
Depth to water (below mp) = $10.11$ feet Date $6/6/05$	
Well diameter = 1.2 inches Water level above	
Volume of water in well = <u>0.7</u> gallons	
PURGING INFORMATION:	
Purging method: Bailer Submersible pump Ta	on Other Y - Peristaltic
Tubing type: Teflon Black poly	Other Y - DVC
Pump intake or bailer set at feet below monitoring point	
Discharge rate (if applicable) <1 gpm x 0.1336806 =	cfm
At least well volumes evacuated before sampling, totaling	~2 gallons.
	<b>U</b>
SAMPLING INFORMATION	
Sampling method: Bailer Tap	Other
Tubing type (if applicable): Teflon O	ther
Tubing type (if applicable):  TeflonO  Bailer was:  Disposable Laboratory cleaned Field c	leaned Other
Sample collected from 12 feet below monitoring point. (mp)	
Sample collection discharge rate (if applicable): = gpm	
Sample appearance <u>Clear</u> O	dor Chemical
Note any sampling observations if necessary Purged dry after 0.5 gallons, sampled on	6/7/05
· · · · · · · · · · · · · · · · · · ·	
Chemical Analysis Low Level VOC	
Equipment Calibration _pH = 7,4,10,7 _Conductivity = 700 μs/cm @ 0930	
24 Strictic Commission - 511 1,4,10,17 Conductivity - 700 parcin @ 0930	
FIELD STABILIZATION	
Temperature	
corrected	Water Level Cumulative
Military Redox conductance Temperature	(nearest volume of water
time pH Pot. [ms/cm] [°C] 1000 6.2 -055 1330 16.4 1010 7.1 -061 1025 14.5	0.01 ft.) removed [gal.]
1010 0.2 -035 1330 16.4 1010 7.1 -061 1025 14.5	~0 ~.5



Sampler's Name: Mathew Beckman		Weather: Overcast/Windy 80's		
Unusual Conditions		Project Edina Well 7 Study		
Location St. Louis Park, MN		STS project number 99613 - XA		
Sample ID number P112		Time <u>1440</u> ampm <u>X</u>		
Describe sampling point				
Unique Well Number <u>00216117</u>				
MONITORING WELL INFORMATION: (If Applica	able)			
Monitoring point elevation = 902	Datum =	Water elevation =		
Well depth (prior to sampling) = 52				
Depth to water (below mp) = 23.12	feet Date 6/7/05	Time <u>1240</u> am <u>X</u> pm		
Well diameter = 1.2	inches Water level above s	creen? No Yes feet		
Volume of water in well = 2.0				
PURGING INFORMATION:				
Purging method: Bailer Sub	marsible nume Tan	Other Y - Peristaltic		
Tubing type: Teflon	Rlack poly	Other Y - PVC		
Pump intake or bailer set at				
Discharge rate (if applicable) <1				
At least well volumes				
SAMPLING INFORMATION		-		
Sampling method: Bailer	Tap	Other		
Tubing type (if applicable):  Bailer was:  Disposable  Labora	Oth	er		
Bailer was: Disposable Labora	atory cleaned Field clea	anedOther		
Sample collected from 20	feet below monitoring point. (mp)			
Sample collection discharge rate (if applicable): =	gpm			
Sample appearance Clear	Odo	r None observed		
Note any sampling observations if necessary				
Chamical Analysis - Lavel WOO durlingto De				
Chemical Analysis Low Level VOC, duplicate P1				
Equipment Calibration <u>pH = 7,4,10,7 Conductivi</u>	ty = 700 µs/cm @ 0930			
FIELD STABILIZATION				
corre	8 17.0 3 16.7 1 16.6	Water Level Cumulative (nearest volume of water 0.01 ft.) removed [gal.]  -0 -3 -4 -75 -6		



Sampler's Name:	Mathew Bec	kman			Weather: Overcast/V	Vindy 80's
Unusual Conditions		Project Edina Well 7 Study				
					· · · · · · · · · · · · · · · · · · ·	99613 - XA
			Date sampled 6			npm <u>X</u>
Unique Well Numb	er 00227944					·
MONITORING WE	LL INFORMA	ATION: (If A	pplicable)			
Monitoring point ele	evation = <u>89</u>	0	Datum	ı=	_ Water elevation = _	
Well depth (prior to	sampling) =	12	feet helow	monitoring point (m)	n)	
Depth to water (bel	low mp) = <u>5</u> .	.11	feet	Date <u>6/7/05</u>	Time 1530	am pm <u>X</u>
Well diameter = _	1.2		inches	Water level above	Time <u>1530</u> e screen? No	Yes feet
Volume of water in	well = <u>0.9</u>		gallons			
PURGING INFORM	MATION:					
Purging method:	Bailer		Submersible numn	т	ap Other	X - Peristaltic
Tubing type:	Teflon	<del></del>	Black poly		Other X - PVC	71 1 0110121110
Pump intake or bai	iler set at		feet be	low monitoring point	(mp).	
			gpm x			
			umes evacuated befo			
SAMPLING INFOR						
Sampling method:	Baile	r	Тар	<del></del>	Other	
Tubing type (if appli	icable):	Teflor	) <u></u>	0	other	
					cleaned C	Other
			feet below monit			
			e): = <u>&lt;1</u>			
Sample appearance	e <u>Clear</u>	···		0	dor None observed	
Note any sampling	observations	if necessary	Purged dry	<del></del>		
Chemical Analysis	Low level V	OC				
FIELD ATABULTAN			<u></u>			
FIELD STABILIZAT	IION					
Military time 1530	pH 6.6	Redox Pot. -113	Temperature corrected conductance [ms/cm] 1527	Temperature [°C] 13.5	Water Level (nearest 0.01 ft.)	Cumulative volume of water removed [gal.] ~.7



Sampler's Name: Mathew B	eckman			Weather: Overcast/W	/indy 80's
Unusual Conditions					Study
Location St. Louis Park, MN	·····			=	99613 - XA
Sample ID number P9					n <u>X</u> pm
Describe sampling point					·
Unique Well Number 002161	18				
		· · · · · · · · · · · · · · · · · · ·			
MONITORING WELL INFOR	MATION: (If A	applicable)			
Monitoring point elevation =			=	Water elevation = _	
Well depth (prior to sampling)	= 14	feet below	monitoring point (mp)		
Depth to water (below mp) =		feet	Date <u>6/8/05</u>	Time <u>0945</u>	am <u>X</u> pm
Well diameter =		inches	Water level above sc	reen? No	Yes feet
Volume of water in well =1		gallons			
PURGING INFORMATION:					
Purging method: Bailer		Submersible nump	Tan	Other	X - Peristaltic
Tubing type: Teflon		Black poly	rup	Other X - PVC	71 7 0110101110
Pump intake or bailer set at _					
Discharge rate (if applicable)					
At least 3	well vo	lumes evacuated befor	e sampling, totaling ~	3 gallons.	
SAMPLING INFORMATION					
Sampling method: Ba	iler	Тар		Other	
Tubing type (if applicable):	Teflor	n	Other	• 	
Bailer was: Disposable		_aboratory cleaned	Field clear	ned O	ther
Sample collected from 11					
Sample collection discharge ra					
Sample appearance Blackisl	n Gray		Odor	Chemical	<del></del>
Note any sampling observation	ns if necessary	Purged dry on 6/7/05	·		
Chemical Analysis Low leve	I VOC				
Equipment Calibration _pH =			0.0030		
Equipment Ganorationpri =	7,7,10,7 OOK	ductivity - 700 parcin tu	, 0300		
FIELD STABILIZATION	·				
Military time pH 1120 6.8	Redox Pot. -204	Temperature corrected conductance [ms/cm] 12.65	Temperature (°C) 14.9	Water Level (nearest 0.01 ft.)	Cumulative volume of water removed [gal.] ~0



Unusual Conditions  Location St. Louis Park, MN  Sample ID number P65 Date sampled Not Sampled  Describe stampling point  Unique Well Number 0022795  MONITOR NG WELL INFORMATION: (If Applicable)  Monitoring point elevation = 901 Datum =  Well depth (prior to sampling) = 29 feet below monitoring point (m	STS project n Time	a Well 7 Study number 99613 - XA ampm
Sample ID number P65 Date sampled Not Sampled  Describe sampling point  Unique Well Number 0022795  MONITORING WELL INFORMATION: (If Applicable)  Monitoring point elevation = 901 Datum =	Time	ampm
Wonitoring point elevation = 901  Describe stampling point  Unique Well Number 0022795  MONITORING WELL INFORMATION: (If Applicable)  Datum =		
MONITORING WELL INFORMATION: (If Applicable)  Monitoring point elevation = 901 Datum =		
MONITORING WELL INFORMATION: (If Applicable)  Monitoring point elevation = 901 Datum =		
Monitoring point elevation = 901 Datum =		
Monitoring point elevation = 901 Datum =		
Well depth (prior to sampling) = 29 feet below monitoring point (m	Water eleva	ation =
Depth to water (below mp) = $23.76$ feet Date $6/7/05$	Time 10	<u>345                                    </u>
Well diameter = 1.2 inches Water level above	ve screen? h	No Yes fe
Volume of water in well = gallons		
PURGING INFORMATION:		
Furging method: Bailer Submersible gump 1	Tan	Other
Furging method: Bailer Submersible pump Tubing type: Teflon Black poly	Other	
Fump intake or bailer set at	nt (mp).	
Discharge rate (if applicable) <1 gpm x 0.1336806 =		
At least 3 well volumes evacuated before sampling, totaling		ie .
Sampling method: Bailer Tap Tubing type: (if applicable): Teflon C	Other	
Bailer was: Disposable Laboratory cleaned Field of	cleaned	Other
Sample collected from feet below monitoring point. (mp)	<del></del>	
Sample col ection discharge rate (if applicable): =gpm		
	Odor	
Note any sampling observations if necessary Purged dry		
	<u></u>	
Chemical Analysis		
Equipment Calibration _pH = 7,4,10,7 _Conductivity = 700 µs/cm @ 0930		
Ednibuleur Aginianou hitzitatioti Animaniti z tao hagau (6 0220		
FIELD STABILIZATION		
Temperature corrected Military Redox conductance Temperature	Water Level	Cumulative
Temperature corrected Military Redox conductance Temperature	(nearest	Cumulative volume of water removed [g:al.]
Temperature corrected Military Redox conductance Temperature		volume of water
Temperature corrected Military Redox conductance Temperature	(nearest	volume of water
Temperature corrected Military Redox conductance Temperature	(nearest	volume of water